

Towards a Networked Gatekeeping Theory:  
Journalism, News Diffusion, and Democracy in a Networked Media Environment

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Thomas John Ernste

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### **Dedication**

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## **Abstract**

This dissertation describes the development of a networked gatekeeping theory for the study of an increasingly internet-mediated news diffusion process. Prior gatekeeping research provides a rich theoretical and methodological framework for investigating and illuminating the process through which certain events and issues on an international, national, and local level become the mediated messages that reach the public. Towards a framework for reconceptualizing gatekeeping theory in which I incorporate principles of graph theory and social network analysis, I describe the development of a more participatory but still asymmetrically structured networked gatekeeping process that is forming according to the communication infrastructure afforded by the internet and its associated technologies. In particular, this dissertation focuses on the implications of these developments for both the practice of and research about news diffusion, journalism, internet-mediated communication, and democracy. In an empirical study of the Twitter-based news ecology of a large Midwestern metropolitan area, I conduct a case study using primarily social network analysis methods that uncovers insights about the patterns that emerge within this dynamic participatory news construction and diffusion process. The findings of this dissertation can be useful for media scholars, media practitioners, and for anyone with an interest in understanding the evolution of the new media of the public sphere.

## TABLE OF CONTENTS

LIST OF TABLES.....	viii
LIST OF FIGURES .....	ix
<b>CHAPTER 1. INTRODUCTION: FROM INDUSTRIAL-CONTROLLED TO NETWORKED GATEKEEPING PROCESS 1</b>	
1.1 THE BANALITY OF TWITTER .....	1
1.2 UNDERSTANDING THE CHANGING MEDIA ENVIRONMENT .....	4
1.3 NETWORKED GATEKEEPING THEORY .....	8
1.4 OVERVIEW OF CHAPTERS.....	12
<b>CHAPTER 2. - THE HISTORY OF GATEKEEPING THEORY 16</b>	
2.1 THE TRANSMISSION MODEL OF COMMUNICATION.....	16
2.2 “GATE KEEPERS” IN THE 20TH CENTURY MEDIA ENVIRONMENT .....	18
2.3 KURT LEWIN AND HIS FIELD THEORY FOR SOCIAL SCIENCE.....	22
2.4 THE SYNTHESIS AND SYSTEMATIZATION OF GATEKEEPING THEORY .....	25
2.4A THE HIERARCHY OF INFLUENCES .....	27
2.5 ARE THERE “GATEKEEPERS” IN THE 21ST CENTURY MEDIA ENVIRONMENT?.....	31
<b>CHAPTER 3. GATEKEEPING FROM A NETWORK PERSPECTIVE 36</b>	
3.1 WHAT IS A SOCIAL NETWORK? .....	36
3.2 WHEN GATEKEEPING BECOMES A NETWORKED PROCESS .....	38
3.3 LEWIN’S PLACE IN THE DEVELOPMENT OF SOCIAL NETWORK ANALYSIS .....	40
3.3A LEWIN’S RESEARCH PROGRAM.....	42
3.3B LEWIN’S SCHOLARLY DESCENDANTS .....	43
3.4 CONNECTING LEWIN TO MODERN SOCIAL NETWORK ANALYSIS .....	46
3.4A NETWORK CENTRALITY .....	47
3.4B CLIQUES AND CLUSTERING.....	55
3.5 VISUALIZING GATEKEEPING WITHIN A NETWORK STRUCTURE .....	57
3.6 “SIX DEGREES OF SEPARATION” .....	63
3.7 FROM MASS SOCIETY TO NETWORKED SOCIETY .....	67
3.7A GATEKEEPING AND PERSONAL INFLUENCE CONVERGE .....	70

3.8 JOURNALISTIC NORMS AND ROUTINES IN TRANSITION .....	74
3.9 CHAPTER CONCLUSION .....	76
<b>CHAPTER 4. THE PROBLEM WITH SOCIAL RESPONSIBILITY</b>	<b>78</b>
4.1 THE INTERNET’S IMPACT ON JOURNALISM AND DEMOCRACY .....	78
4.2 THE PUBLIC SPHERE.....	83
4.3 SOME PROMINENT IDEAS FOR STRUCTURAL MEDIA REFORM.....	86
4.4 MEDIA REFORM FROM THE INSIDE: THE CASE OF PUBLIC JOURNALISM.....	89
4.5 WHAT IS/WAS THE PUBLIC JOURNALISM MOVEMENT?.....	90
4.6 DECONSTRUCTING THE PUBLIC JOURNALISM MOVEMENT.....	92
4.8 - A FIFTH ESTATE? .....	101
<b>CHAPTER 5. TOWARDS MORE RELEVANT JOURNALISM WITHIN A NETWORKED GATEKEEPING PROCESS</b>	<b>106</b>
5.1 THE WAY FORWARD .....	106
5.1A THE PRESSURES ON JOURNALISM AS A PROFESSION .....	107
5.2 JOURNALISM IN A NETWORKED COMMUNICATION ENVIRONMENT .....	116
5.3 THE MYTH OF DIGITAL DEMOCRACY? .....	117
5.4 POWER LAW DISTRIBUTIONS AS CHARACTERISTIC OF NETWORKS .....	121
5.5 SOCIAL NETWORK SITES AND THE NETWORKED GATEKEEPING PROCESS .....	123
5.6 JOURNALISM WITHIN A NETWORKED GATEKEEPING PROCESS .....	125
5.7 TWITTER .....	133
5.7A THE NUTS AND BOLTS OF TWITTER.....	134
5.7B TWITTER, JOURNALISM, AND THE FLOW OF NEWS AND INFORMATION .....	135
5.7C HOW TWITTER REPRESENTS A SOCIAL NETWORK .....	139
5.8 TWITTER DATA COLLECTION.....	140
5.9 EMPIRICAL RESEARCH OF TWITTER .....	143
5.9A BOUNDARY SPECIFICATION AND “FINDING THE ACTUAL GATEKEEPERS” .....	144
5.9B WHAT “RESPONSIBILITY” DOES JOURNALISM HAVE FOR DEMOCRACY? .....	147
<b>CHAPTER 6. METHODS AND RESULTS</b>	<b>154</b>
6.1 TWITTER AS MICROCOSM OF THE NETWORKED GATEKEEPING PROCESS .....	154



6.1A ADDRESSIVITY MARKERS.....	157
6.2 THE DATASETS.....	158
6.3 DATASET 1, PART 1: 1 <sup>ST</sup> NEWS ORGANIZATION-CENTRIC NETWORK.....	159
6.3A SOCIAL NETWORK OF TWITTER LINKS TO 16 TWIN CITIES NEWS OUTLETS.....	159
6.3B RESULTS FOR DATASET 1, PART 1.....	162
6.4 DATASET 1, PART 2: 1ST NEWS ORGANIZATION-CENTRIC NETWORK:.....	167
6.4A TOP 100 “NETWORK GATEKEEPERS” IN FIRST SOCIAL NETWORK.....	167
6.4B RESULTS OF DATASET 1, PART 2.....	177
6.5 DATASET 2: 2ND NEWS ORGANIZATION-CENTRIC NETWORK.....	180
6.5A SOCIAL NETWORK WITH TOP 50 MOST FOLLOWED TWIN CITIES JOURNALISTS.....	180
6.5B RESULTS, DATASET 2.....	182
6.6 DATASET 3: ISSUE-CENTERED SOCIAL NETWORK.....	185
6.6A SOCIAL NETWORK FOR #MNLEG HASHTAG.....	185
6.6B RESULTS OF DATASET 3.....	193
6.6C SOCIAL NETWORK VISUALIZATION OF DATASET 3, #MNLEG HASHTAG.....	198
<b>CHAPTER 7. DISCUSSION</b>	<b>202</b>
7.1 BY THE NUMBERS.....	202
7.2 CHOOSING CONCEPTUALLY APPROPRIATE CENTRALITY METRICS.....	203
7.3 EVENT/ISSUE-CENTERED JOURNALISM.....	206
7.4 THE JOURNALISTIC VIEW OF DEMOCRACY.....	211
7.5 SPORTS JOURNALISM ON TWITTER.....	213
7.5A SPORTS AND THE SPHERE OF CONSENSUS.....	214
7.5B SPORTS JOURNALISM: THE “TENT POLES” OF TODAY’S JOURNALISM INDUSTRY?.....	217
7.5C NEWS BEATS AND THE POWER LAW DISTRIBUTION.....	218
7.6 MORE ON THE POWER LAW OF EXPOSURE TO ONLINE MEDIA OUTLETS.....	219
7.7 A HETERARCHY OF INFLUENCES?.....	223
<b>CHAPTER 8. CONCLUSIONS</b>	<b>227</b>
<b>REFERENCES</b>	<b>231</b>

## **LIST OF TABLES**

Table 6.1 – Description of Replies and Mentions .....	157
Table 6.2- Characteristics of Dataset 1 .....	161
Table 6.3 - Data for 16 Twin Cities News Organizations .....	163
Table 6.4 - Top 35 most followed nodes that appear in Dataset 1 .....	169
Table 6.5 - Top 100 Nodes in Dataset 1 by Indegree Centrality, in rank order.....	171
Table 6.6 - Data collection conditions for Dataset 2.....	181
Table 6.7 - Top word pairs from Dataset 2.....	184
Table 6.8 - Data collection conditions and characteristics of Dataset 3 .....	186
Table 6.9 - Top 100 nodes in Dataset 3 by indegree centrality .....	187

## LIST OF FIGURES

Figure 2.1 - Shannon and Weaver (1949) model of communication .....	16
Figure 2.2 - Westley and MacLean's (1957) model of communication .....	17
Figure 2.3 - Lewin's illustration of field theory applied to food consumption.....	25
Figure 2.4 - The hierarchy of influences model as it was visualized in 1991.....	28
Figure 2.5 - Shoemaker's and Vos's (2009) depiction of 21st century gatekeeping .....	35
Figure 3.1 - Bavelas's four example patterns of group communication structures .....	49
Figure 3.2 - Distance between each of the group members in example D, Figure 2.6.....	50
Figure 3.3 - Bavelas's example graphs with relative centrality metrics for each node ....	52
Figure 3.4 - Link structure of four groups in experiment described by Leavitt (1951)....	53
Figure 3.5 - Watts's and Dodds's (2007) Visualization of Two-step Flow of Influence ..	58
Figure 3.6 - Illustration of a completely connected network .....	61
Figure 3.7 - Watts's and Dodds's (2007) Networked Communication Model .....	72
Figure 3.8 - Power law distribution of blogs by their inbound links from Shirky (2003) 73	
Figure 6.1 - Power law distribution of tweet frequency for 16 Twin Cities news URLs	166
Figure 6.2 - Social network visualization of #mnleg hashtag.....	200
Figure 7.1 - Structural properties of datasets 1-3.....	202
Figure 7.2 - Hallin's (1986) spheres.....	213

# CHAPTER 1. INTRODUCTION: FROM INDUSTRIAL-CONTROLLED TO NETWORKED GATEKEEPING PROCESS

## 1.1 THE BANALITY OF TWITTER

In the mid-19<sup>th</sup> century, the invention of the telegraph was set to drastically change the speed at which information could travel across geographic spaces. Its inventors and developers had high hopes that the new technology would develop into “a tool to serve business and the public interest” (Van Riper, 2011, p. 64). In the popular view of at least one writer, however, telegraph technology “was soon co-opted (as the telephone and the Internet would be) for romance and other ‘frivolous’ purposes” (p. 64). Indeed, this sentiment was not uncommon at the time of the telegraph’s development. The famed transcendentalist author Henry David Thoreau, for one, wrote the following about the telegraph in his *Walden: Life in the Woods*, published in 1854:

Our inventions are wont to be pretty toys, which distract our attention from serious things. They are but improved means to an unimproved end, an end which it was already but too easy to arrive at; as railroads lead to Boston or New York. We are in great haste to construct a magnetic telegraph from Maine to Texas; but Maine and Texas, it may be, have nothing important to communicate. Either is in such a predicament as the man who was earnest to be introduced to a distinguished deaf woman, but when he was presented, and one end of her ear trumpet was put into his hand, had nothing to say. As if the main object were to talk fast and not to talk sensibly. We are eager to tunnel under the Atlantic and bring the Old World some weeks nearer to the New; but perchance the first news that will leak through into the broad, flapping American ear will be that the Princess Adelaide has the whooping cough. After all, the man whose horse trots a mile in a minute does not carry the most important messages (Thoreau, 1854/1910, p. 57-58).

A series of recent developments in communication technologies and concurrent processes to shape these technologies have enabled the development of a public communication system with almost none of the constraints of time and space that existed even after the development of the telegraph, the telephone, and broadcast media. Further, unlike the telegraph or other broadcast communication, the internet gives the power of broadcast to the public. Thus, the development of the internet and its associated technologies have enabled a new level of speed in the travel of messages among an ever expanding network of people and organizations. One of the quintessential digital personifications of this more connected world within the modern media environment is the microblog and social network site known as Twitter. Like the telegraph and other communications mediums before it, Twitter—with its 140 character per-post limit and minimalist interface that eschews the focus that some social network sites have on the individual in favor of whole—has enabled a new level of rapidness in what Thoreau would probably consider the flow of trivial communication. Indeed, in a modern version of Thoreau’s lament, the *New York Times* columnist Maureen Dowd (2009) has suggested that the site is nothing more than “a toy for bored celebrities and high-school girls.” And in an interview with the founders of Twitter, Dowd suggested that they should have instead called the site “Clutter.” And of course, Dowd is partly correct—Twitter does contain a lot of communication that is inconsequential for the public as a whole.

But is this thesis that our communications technologies have been consistently hijacked for trifling purposes valid? On the one hand, it is impossible to deny the suggestion that Twitter and other modern communications technologies offer a dizzying array of banality, a seemingly endless look into the most mundane aspects of the lives of people around the world. And yet this argument taken by itself ignores a simple truth: most of the daily conversation happening among people around the world would likely be judged as relatively inconsequential in the context of anyone outside of a close circle of acquaintances. Thus, the high quantity of communication via internet-media communication that we might see as frivolous on the one hand can also be seen as a manifestation of the overall patterns of human communication that have always existed. Indeed, the public conversation made observable on social network sites like Twitter—the Twitter “fire hose” as some call it—can also be viewed as the manifestation of a new kind of public record of human interactions that is more comprehensive and natural than we have previously been able to observe and empirically study.

Furthermore, within this massive network of public communication, there is arguably more than meets the superficial eye. That is, as Murthy (2012) argues, much of the interaction among private groups of people that might be inconsequential for the public at large may represent significant expressions of social cohesiveness. To this point, Murthy

(2012), writes that “we should recall Bourdieu’s argument that the daily, sometimes ‘banal’ is pregnant with meaning. In the case of Twitter, ‘banal’ social media posts serve as an important vehicle of self-affirmation (p. 1062).

Indeed, to some extent this acknowledgement that all social interaction can be meaningful is the rationale behind the analysis of patterns of communication that is observable in the form of what is often called “metadata” or the “data about data.” The sharing of information that occurs via the internet may involve discussion of news of an important election or event or it may involve the sharing of a video of a cat playing a piano. In and of themselves, all forms of communication, both “socially important” and “banal” can have sub-textual meaning. And more than this, through the creative and careful application of social science methods, researchers can isolate metadata patterns in public communication that help us to understand common characteristics in the flow of certain types of information through certain types of people. This is the fundamental project of this dissertation: specifically, to identify and give meaning to patterns in internet-mediated communication, especially patterns that can help us to understand the changing role of journalism and changing structure of news diffusion in a media environment that is increasingly mediated by internet-connected technologies.

## **1.2 UNDERSTANDING THE CHANGING MEDIA ENVIRONMENT**

Years ago, at a time when the internet was merely an idea in development by the US government, social scientist Roger Brown (1965) suggested that we might eventually

reach a point in which we can observe an organically developed social structure. He wrote:

Social structure becomes actually visible in an anthill; the movements and contacts one sees are not random but patterned. We should also be able to see structure in the life of an American community if we have a sufficiently remote vantage point, a point from which persons would appear to be small moving dots. We should see those dots mobile by day and immobile for much of the night. We should see that these dots do not randomly wander over the terrain but follow fixed paths and return regularly to what appear to be family territories. We should see that these dots do not randomly approach one another, that some are usually together, some meet often, some never. The determinants of perceptual structure called 'proximity' and 'common fate' would group the dots for us into cohering dyads, families, and strata. The determinant of perceptual structure called similarity' would cause us to notice that dots with trousers lift their hats to dots with skirts, that dots in blue uniforms stand in the street blowing whistles and waving their arms at dots in cars. If one could get far enough away from it human social life would become pure pattern (p. 47).

The challenge in almost any piece of social science research is to sift through all of the human and social behavior that seems to represent an unordered array of actions and interactions and to find patterns that can contribute to improving our knowledge of ourselves. Within the exchange of both "frivolous" and "important" information via social network sites like Twitter, then, we are offered the kind of distance from human social life that Brown suggested would better help us to see some of the overarching patterns in our social structure.

In the social science method that has come to be known as "social network analysis," the metadata of communication patterns between people can be represented as a social network or "social graph" in which people are represented by dots (also known



as nodes or vertices) and their connections to one another can be represented by connecting lines between them (also called ties or edges). Taken together, the overall structure of these nodes and ties—the cumulative absence or existence of different kinds of connections between various people or groups in the world—make up a social network.

Dating back many years now, social network analysis scholars have recognized the increasing importance of communications technologies to the formation and stabilization of social network ties and overall social structure. For instance, Ronald Burt wrote in 1976 that “with the growth of technology and its concomitant division of labor, the determination of actors in society as a function of their relations with other actors is likely to increase rather than decrease. (p. 93). Indeed, as Haythornwaite and Wellman (1998) write, “when a computer connects people (or organizations), it is a social network” (p. 1101). The job of social science and particularly, of social network analysis of online spaces in an evolving media environment is to develop theoretically driven ways of finding important and meaningful patterns within the seemingly disordered flow of internet-mediated communication that comprises what some call the “social media firehose” (see Hendrickson, 2012; Kietzmann, Silvestre, McCarthy, & Pitt, 2012).

Over the past few decades, communications technologies have become increasingly integrated into human life. In the 1980s, it became increasingly common for homes around the world to have a single desktop computer in one of the rooms in the

house. Within a decade, personal home computers had become widely diffused and a relatively rapid public-wide diffusion of the internet as a new information resource began. A decade or so later, after the turn of the 3<sup>rd</sup> millennium, the development and diffusion of increasingly portable computers connected together by social network sites brought greater density and definition still to the global social network of internet-mediated connectedness.

Through these changes, the passive audiences of the 20<sup>th</sup> century model of media became what media scholar Jay Rosen (2009) calls “the people formerly known as the audience.” That is, he writes, the internet-mediated communication technologies that now connect the formerly atomized public have forever disrupted old models for understanding the role of mediated public communication in society. Today, people in advanced nations and even many in third world countries today have internet-connected computers that they can carry around in their pockets. With the early development of wearable devices such as *Google Glass* upon us today, Marshall McLuhan’s (1964) suggestion that our communications technologies have become “an extension of our central nervous systems” is really no longer much of an exaggeration. The interconnected “global village” that McLuhan described, with all of the favorable and unfavorable characteristics that can make up a community, is upon us.

In this dissertation, at the most basic level I seek to better understand the new patterns of communication that our communications technologies have helped to make

possible. More specifically, I seek to better understand the evolving role of journalism and the changing structure of news diffusion within this changing media environment as it becomes a collective and networked process that plays out amongst professional and paraprofessional journalists, various elites, private and governmental entities, and citizens.

In the early years of the internet's widespread public diffusion in the 1990s, visions of the internet as a democratizing media form took hold of the popular imagination (see Rheingold, 1993; Negroponte, 1995; Grossman, 1995; Barlow, 1996). Others offered rather cautious views of the internet's impact on the media and society, with Stoll writing in 1995 that "lacking editors, reviewers or critics, the Internet has become a wasteland of unfiltered data." But discussions about the role of mediated communication in society today are not very well-served by futurism—neither utopian nor dystopian—nor by normative visions at all of what the internet *could be* or *should be*. Instead, in this dissertation I seek to provide a theoretically driven empirical approach towards better understanding the evolution of the media environment and the place of journalism and news diffusion within it through the lens of a reconceptualized, networked gatekeeping theory.

### **1.3 NETWORKED GATEKEEPING THEORY**

In a widely cited article in 1996, at a time when excessively romantic discussions about the democratic promise of the internet abounded, Morris and Ogan (1996) offered

the simple but fundamentally sound suggestion that our efforts to understand the shift towards an increasingly internet-mediated communication environment must begin with a careful orientation to theory. In part, they wrote:

If mass communications researchers continue to largely disregard the research potential of the Internet, their theories about communication will become less useful. Not only will the discipline be left behind, it will also miss an opportunity to explore and rethink answers to some of the central questions of mass communications research, questions that go to the heart of the model of source-message-receiver with which the field has struggled (p. 39)

Indeed, much of the research about the internet at that time continued to be based upon old models and theories for understanding the place of media in society when fundamentally different mass broadcast and print mediums were the norm. Among their ideas for moving forward, Morris and Ogan suggested that the body of literature that has developed to understand the structure of social networks would be useful for the development of new media research. That is, specifically, they argued that the study of social network structure offers a fruitful basis for reorganizing the study of mediated communication to account for the development of internet and its associated technologies.

Still, in order to find the way forward for understanding the place of the internet and journalism in the modern media environment, it is important to understand what past theorizing about the media model of the 20<sup>th</sup> century can tell us about the changing media environment today. Towards this end, I discuss in this paper the development of a “networked gatekeeping process” that is based upon the intersection of gatekeeping theory

(White, 1950; Shoemaker, 1991; Shoemaker and Vos, 2009) and social network analysis (Wasserman and Faust, 1994; Knoke and Yang, 2008).

Within the 20<sup>th</sup> century linear media model, David Manning White suggested in 1950 that mass media organizations and the journalists who worked for them took on the role of society's news "gatekeepers." Gatekeeping by mass media organizations within that media system involved the total process of observing current events around the world, sorting through those events, constructing media messages to report the events that were most newsworthy, and disseminating the news about those events to the public. For some, including Jones (2009) and Baker (*A New Age for Newspapers*, 2009), the collapse of the economic model for the newspaper journalism that has come with the development of the internet has become a clear crisis for democracy. This sensibility regarding these ongoing changes is also clearly part of the logic that leads a professional, "old school" journalist such as Maureen Dowd of the venerable *New York Times* to dismiss a popular internet-based communication platform such as Twitter for the superficial interactions that it facilitates. Such views of the media system see the place of journalism through a "social responsibility" model of democracy, or what sociologist Herbert Gans (1998) calls a "journalistic theory of democracy." Within a journalistic theory of democracy, journalists are "ethical gatekeepers" and without journalists "democracy falls apart" (Singer, 2008).

My approach in this dissertation seeks to move past questions of whether or not

the collapse of newspapers is a problem for democracy. After all, the reality is that the economic collapse of newspapers has become part of the new normal in the media landscape and there are no signs of significant recovery back to the 20 or 30 percent profit margins that newspapers once enjoyed (Anderson, Bell, and Shirky, 2012). Still, this research shares with media observers like Jones and Baker a fundamental interest and belief in the importance of journalism for democracy. But in what form? The changing role of journalism and the news diffusion process in the modern media system today can be understood as the result of a shift in the proverbial center of gravity in the gatekeeping process. This process that once revolved around the news messages and mediums constructed by the traditional news organizations who once almost entirely controlled the public's only efficient points of access to daily public affairs news has been transformed through the affordances of new communications technologies. Today, the emerging news construction process can now be understood to be revolving around news and information itself (Lewis, 2010) and the various internet-based technological platforms that facilitate the flow of information. As a result of this shift, the sole gatekeepers of the past—professional news organizations—have lost their former control of information, forcing them to adapt to a new role within what has become a more shared, networked gatekeeping process.

This dissertation has three general objectives for the study of media, including: (a) to reconsider and extend gatekeeping theory in an effort to better account for the way that

the internet and its associated technologies have changed the news construction and diffusion processes; (b) to offer a basic conceptual justification and methodological approach for incorporating social network analysis methods into the toolkit of methods that are vital for the study of the networked gatekeeping process in the 21<sup>st</sup> century; and finally, (c) to identify the implications of this reimagined conceptualization of the gatekeeping process for journalism and the broader public sphere.

#### **1.4 OVERVIEW OF CHAPTERS**

Towards describing a reconsidered framework for understanding the gatekeeping process which can account for the actual shifting role of journalism within the 21<sup>st</sup> century media environment, in *Chapter 2* I first describe the evolution of gatekeeping theory as it became understood over the second half of the 20<sup>th</sup> century. As Pamela Shoemaker (1991) and Stephen Reese (see Shoemaker and Reese, 1991) described the news construction process in 1991, the gatekeeping process over time became understood over several decades of mass communication research as a multivariate process involving not only decisions by individual journalism professionals but also various mezzo and macro level influences on the production of media content. Shoemaker noted the consequential place of the pioneering social-psychologist Kurt Lewin as foundational scholar in the development of our understanding of gatekeeping as a more complex and systematic process. But with the development of a media environment that is increasingly based upon new technologies that connect people through the internet, there

are new challenges for understanding the gatekeeping process and its implications for journalism and news diffusion.

In *Chapter 3* then, I describe the theoretical basis for understanding the ongoing changes in the gatekeeping process as these technologies are being used to transform the underlying structure of mediated-communication in the modern media environment. A return to the foundational place of Kurt Lewin's work in the development of both gatekeeping theory and social network analysis offers a fruitful starting point for recognizing how to conceptualize and operationalize the study of gatekeeping as it becomes a networked process. As van Dijk (2012) notes, it is in part through the development of new communication technologies that the social structure of society has shifted from a model of "mass society" towards a "network society." This shift is intricately intertwined with the changing structure and function of media and journalism in democracy.

In *Chapter 4*, I review some of the essential perspectives and developments in previous research that have sought to describe and in some cases normatively prescribe the purpose of journalism and news in democracy. I provide an overview and assessment of a body of literature that includes some of the major normative arguments and about the role of journalism in democracy, along with various suggestions and practical efforts that some scholars and media professionals have pursued in search of a media system that can better serve society (Habermas, 1989; Carey, 1995; Rosen, 1999;



Glasser, 1999; McChesney, 2004; Baker, 2007). Ultimately, I problematize the utility of these perspectives that have sought to provide a normative basis for the purpose of journalism in democracy, especially those that derive from a “social responsibility model of journalism.” Specifically, I suggest that various scholars from sociology, economics, political science, and journalism studies research including Lippmann (1922), Downs (1957) Dahl (1989), Gans (1998), Schudson (1999), and Bimber (2003) have offered better, more pragmatic arguments for understanding the concept of citizenship and the purpose of journalism and the media in democracy.

In *Chapter 5* then, I review the literature that has sought to understand the changing place of journalism in a media environment that has come to be increasingly structured according to the internet and its associated technologies. The sociology of professions literature is helpful for understanding the challenges within the evolving media environment that call for the journalism profession to adapt new operational practices and norms. Journalism is necessarily becoming an increasingly participatory process in a period of significant transition (Shirky, 2008; Singer, 2008; Lewis, 2012) as social network sites like Twitter are becoming what computer scientists have called “awareness systems” (Markopoulos, Ruyter, and Mackey, 2009; Hermida, 2010). Today then, a mixture of traditional journalists, non-traditional media workers, other kinds of prominent people and groups, and even some citizens are becoming a collective body of relatively influential “network gatekeepers” within the modern networked media ecology

(Meraz and Papacharissi, 2013) as their place in the structure of social networks drives the construction of the media that reaches the public.

In the empirical study that I outline in *Chapter 6* then, I describe a set of methods I have used to more fully address questions about how Twitter as a social network site plays a role in the networked gatekeeping process for news that is relevant within a geographically fixed local community. Since Twitter's introduction in 2006, it has become probably the most frequently used online social network by professional journalists and news organizations in the US for disseminating their journalistic professional work and engaging with the public. A series of social network analyses of Twitter's role in the media ecology for a large US metropolitan area reveals patterns in the ways that online social networks facilitate journalism as a more participatory process. As I will show, a variety of established and start-up news organizations, bloggers, and other thought leaders have become among a new set of central voices of influence alongside traditional media organizations and professional journalists within the networked public sphere (Benkler, 2006).

In *Chapter 7*, I consider the implications of these findings for media scholarship, offering some ideas about how this research can be helpful for understanding the ongoing development of journalism within this new media ecology. And in *Chapter 8*, I draw some conclusions and discuss some of the broader implications of this research.

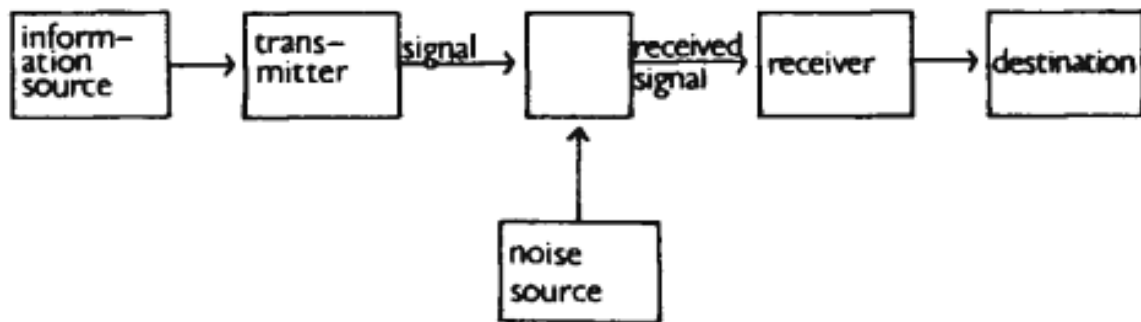
## CHAPTER 2. - THE HISTORY OF GATEKEEPING THEORY

*“There is nothing so practical as a good theory.” – Kurt Lewin, 1943*

### 2.1 THE TRANSMISSION MODEL OF COMMUNICATION

At the end of the 20<sup>th</sup> century, more than a half-century of research and theory since the early development of the journalism and mass communication discipline in the 1940s had been based primarily around a “transmission” model of media first described by Shannon and Weaver (1949) (see **Figure 2.1**). Within this dominant model of the pre-

*Figure 2.1 - Shannon and Weaver (1949) model of communication*

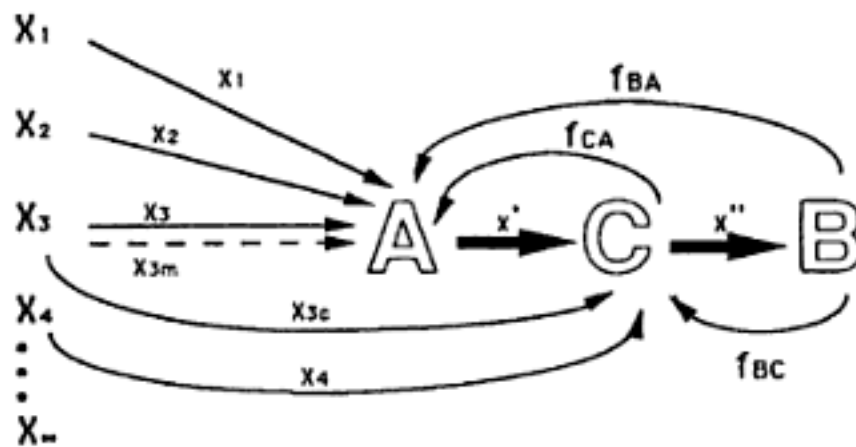


Source: Shannon, C., & Weaver, W (1949) *The mathematical theory of communication*. Urbana, Univ. of Illinois Press.

digital media era, publicly mediated communication could be understood as a one-way, linear process in which centralized information “transmitters” would determine the media messages that could be transmitted through mass media to the passive “receivers”—the

audience. Westley and MacLean (1957) later offered a slightly modified model of communication that provided at least the implicit basis of much of the research of the 20<sup>th</sup> century about the role of mediated communication in society (see **Figure 2.2**). This

*Figure 2.2 - Westley and MacLean's (1957) model of communication*



Source: Westley, B. H. & McLean, M. S., Jr. (1957). A conceptual model for communications research. *Journalism Quarterly*, 34, 31-38.

model departed from the Shannon and Weaver model slightly in that it acknowledged that the public communication process through the mass media included a chain of multiple mass media outlets distributing media messages to the public. Further, this model recognized a basic but limited capacity for the public to give limited feedback to professional media outlets through letters to the editor and other such public voice options that were curated by traditional media outlets. Still, the basic linear, mostly one-way and thus non-interactive mass communication model for understanding media became entrenched and

had significant inertia as a central model for the development of journalism and mass communication theory. Among the most well-known theories about the role of mediated communication society that developed around this linear model is gatekeeping theory.

## **2.2 “GATE KEEPERS” IN THE 20TH CENTURY MEDIA ENVIRONMENT**

According to the most recent full discussion of gatekeeping theory by Shoemaker and Vos (2009), gatekeeping can be understood as “the process of culling and crafting countless bits of information into the limited number of messages that reach people every day” (p. 1). Given that gatekeeping is the process of constructing the available media messages that make up the daily news, gatekeeping is thusly also “the overall process through which the social reality transmitted by the news media is constructed” (Shoemaker, Eichholz, Kim, and Wrigley, 2001, p. 233). But discussions of gatekeeping as a process and theory have gone through significant revisions since the first gatekeeping study within the mass communication research tradition that appeared in 1950.

In that original study entitled “The Gate Keeper”, David Manning White conceived of the function of newswire editors as society’s gate keepers given the central roles they played in the selection of the current events information that would appear on the day’s newswire as the publically accessible news. Having been acquainted with the pioneering social psychologist Kurt Lewin while White was a student at the University of Iowa and Lewin was on the faculty there, White co-opted the gate keeper concept (later

becoming the “gatekeeper” concept) from an article Lewin (1947) had written in which he described his field theory.

With his field theory, Lewin had approached the study of human behavior “as a physicist and viewed decisions resulting from the interplay of psychological “forces” that could be studied mathematically” (Reese and Ballinger, 2001). In an example that Lewin had used to illustrate field theory, Lewin identified housewives as extremely influential gatekeepers within a family when it came to their food consumption decisions and habits. White thought that this idea of influential gatekeepers could also be applicable for understanding the role that a newswire editor had in determining the news that would become accessible to the public each day.

In his original empirical study which introduced the gatekeeper concept to mass communication research, White had focused his attention on the selection decisions made by a single newswire editor who he gave the pseudonym Mr. Gates. White specifically asked Mr. Gates to save a copy of all wires received at his AP office during a one-week period during the election season of 1949. White also requested that Mr. Gates describe the decision-making process he used to eliminate certain stories over others that would reach the newspaper. White then compared the news items that were reported about with the 90 percent that were not reported on, writing in his findings that Mr. Gates’ editorial decisions of the newsworthiness of various pieces of information were “highly subjective” (1950, p. 386) and mostly based upon his perception of truthfulness of the

content.

Notably, White's study was particularly groundbreaking in its day in that it represented a departure from the dominant approach in the mass communication research discipline at that time in which scholars had primarily attempted to address the effects of mass media on the public. With this original gatekeeping study, David Manning White had seen that it was also important to study the processes that affect the creation of media messages in the first place, important because the content of the mass media does not necessarily—as it had been previously—reflect the totality of actual social reality. As Reese and Ballinger (2001) describe White's fundamental contribution:

As we have seen, early U.S. communication research did not treat the creation and control of media content as a central issue. The available messages were assumed to flow from the environment, keeping the community in a relatively harmonious balance. By identifying gatekeepers, White brought into focus the intuitive notion that not all that happens in the world gets into the news. Not only that, these gatekeepers were thought to choose what got in based on their own subjectivity, adding a troubling challenge to the benign view of a well-tuned surveillance-providing media system. Acknowledging that news is what gatekeepers say it is brings the entire role of the news media themselves into question, and we can no longer assume that news is an unproblematic reflection of societal events, helping maintain the entire system in equilibrium (p. 647).

But White's study was only a beginning for gatekeeping research. Given that this original gatekeeping research was focused on a single editor's subjective decision making about the newsworthiness of the current events reports that came across his desk, White had ignored the potentially numerous other people and factors beyond these subjective decisions that contribute to the selection and creation of media messages by news

organizations. After White's original gatekeeping study then, several scholars in the following decades conducted studies that identified additional micro, mezzo, and macro level influences on the construction of media messages that White had not considered (see Gieber, 1956, Westley and Maclean, 1957; McNelly, 1959; Bass, 1969; Halloran, Elliot, and Murdock, 1970; Donahue, Tichenor, and Olien, 1972; Wackman, Gillmor, Gaziano, and Dennis, 1975; Gans, 1979, Bagdikian, 1983; Herman and Chomsky, 1988 and numerous others).

Then, in a 1979 article, Richard Brown observed that gatekeeping studies within the journalism and mass communication literature until that time had offered "a tantalizing approach to publication decision-making but, to date, have produced a rather limited return" (p. 595). Brown suggested that the limitations of gatekeeping research began with flaws in the way that White co-opted Kurt Lewin's original conception of gatekeepers for the purposes of studying the social function of mass media while leaving behind Lewin's broader field theory. Brown wrote:

From the point at which David Manning White transposed Kurt Lewin's gatekeeper concept to communications situations, elements of the original concept have been ignored or interpreted in a manner that renders some of the findings questionable.... While White's pioneering study represents a brilliant recognition of a new avenue for exploration, his methodological departures from Lewin's concept obscured rather than delineated some aspects of the process (p. 595).

Brown did not fully articulate a theory in that article for understanding the many varied types of influence in the gatekeeping process. But as Shoemaker (1991) would later find, Brown's suggestion was pivotal in recognizing that Lewin's entire "field theory" would



be essential towards the development of a complex and cohesive gatekeeping theory for better understanding the multivariate individuals, organizations, and other sociological components involved in the process through which media messages get constructed. To understand more precisely how Lewin's field theory would be useful for understanding gatekeeping in the context of studying the mass media, a brief description of Lewin's background and the theory is useful.

### **2.3 KURT LEWIN AND HIS FIELD THEORY FOR SOCIAL SCIENCE**

In the 1940s, Kurt Lewin had lead an empirical research project for the Child Welfare Research Station at the University of Iowa to investigate how people might be persuaded to adapt healthy food consumption habits (see Lewin, 1943) while trying to deal with food shortages during World War II. This research reflected Lewin's already established but as-yet little developed notion of what would become his field theory. Lewin's field theory articulated and systematized his most basic and important suggestion, derived from the principles of gestalt psychology that he had learned at the University of Berlin under several pioneering gestalt scholars, that human behavior is influenced by a person's "life space"—factors in his social environment. Lewin's approach departed from the previously dominant behaviorist approach to psychology in that he viewed human behavior "as a physicist and viewed decisions resulting from the interplay of psychological 'forces' that could be studied mathematically" (Reese and Ballinger, 2001).

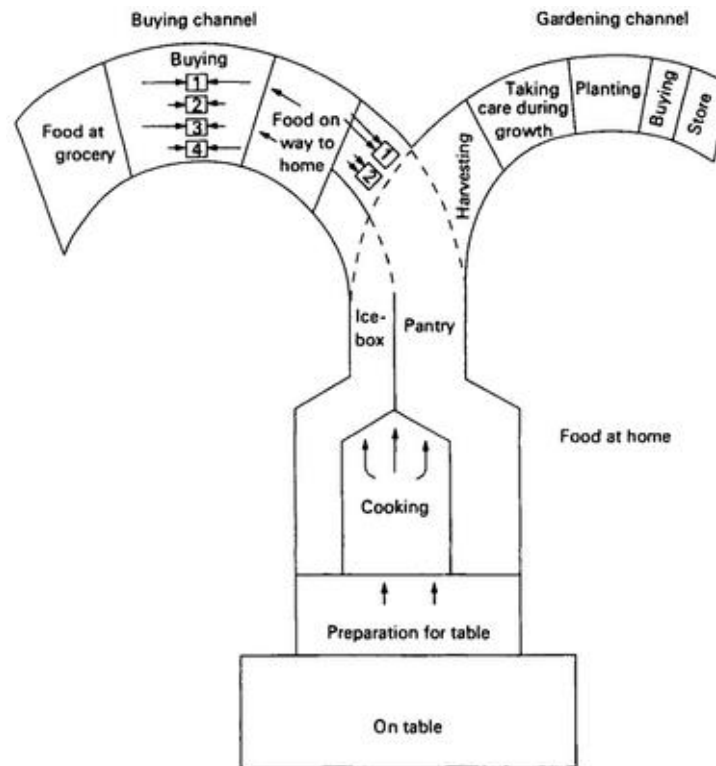
In a 1947 article that Shoemaker and Vos (2009) cite as the clearest explanation of Lewin's field theory, Lewin used his food consumption research as an illustrative basis for his description of field theory. This example provided a salient analogical model for describing how a confluence of people and environmental factors that interact with a person—that person's "psychological field"—can be seen as influencing a person's behavioral actions or habits. In the context of his food consumption study, Lewin theorized that there are multiple "channels" through which food must successfully travel before reaching people. Within each of these channels, he said, there are "sections" with "gates" that are "governed either by impartial rules or by 'gate keepers'" (p. 145). These channels and sections and gates were the collection of variables that could be understood as preceding the development of habitual dietary choices including things like the way a grocery store is laid out, how food gets from its source to the home, where and how food is stored, who buys food for a family, whether or not a person has a garden, and who tends to that garden, how food is cooked, and how the food is presented on a plate for consumption. The gates in this process, then, are the potentially limitless environmental factors or decision points at which "impartial rules or gatekeepers" can influence the final outcome of the food consumption process. The gatekeepers, Lewin said, could be individual people or groups that hold influence over the decisions about whether a given food item passes through given gates. And these other "impartial rules" are non-human conditions of the environment that influence the process too, such as demands on time or

space for procuring and transporting the food.

The results of Lewin's research revealed what was then a groundbreaking finding. First, and contrary to what strict behavioral psychologists had previously suggested, our efforts to understand how people make decisions and develop habits should not focus only on the analysis of their personal cognitive characteristics. In addition, he found, a person's behaviors and habits could also be understood through their interactions with multiple "gatekeepers" and other "impartial rules" within one's social-psychological field which influence the ultimate development of habits and decision-making (**Figure 2.3** is Lewin's field theory in a graphical visualization using this food example). Notably, too, Lewin acknowledged that there are more potential channels and sections than just the buying and gardening channels and the various sections within these channels, just as there are many potential channels, sections, and gates in the news diffusion process).

Put in a more generalized context for our study of psychological and social behavior, Lewin found that our understanding of the habits and behaviors of people must involve recognizing the multivariate structural factors within a person's own social environment that influence the ongoing development of their behaviors and habits. Since Lewin's objective was to understand how strategic intervention could influence peoples' decisions and habits, he noted then that pivotal actors in the social field can have some influence even as there are certain unavoidable environmental factors (the impartial rules" that also influence the overall process. Lewin's findings became important as he

Figure 2.3 - Lewin's illustration of field theory applied to food consumption



From: Lewin, K. (1947). *Frontiers in Group Dynamics II. Channels of group life; social planning and action research. Human relations, 1(2)*, 143-153.

recognized that strategic efforts to influence peoples' food consumption decisions should be targeted at housewives who were by far the most significant decision makers or "gate keepers" in the food consumption behaviors of families all around the country.

## 2.4 THE SYNTHESIS AND SYSTEMATIZATION OF GATEKEEPING THEORY

In 1991, Pamela Shoemaker set out to describe a full gatekeeping theory that would provide a way of understanding the construction of media messages as being the product of a multivariate set of forces that precede the actual presentation of those

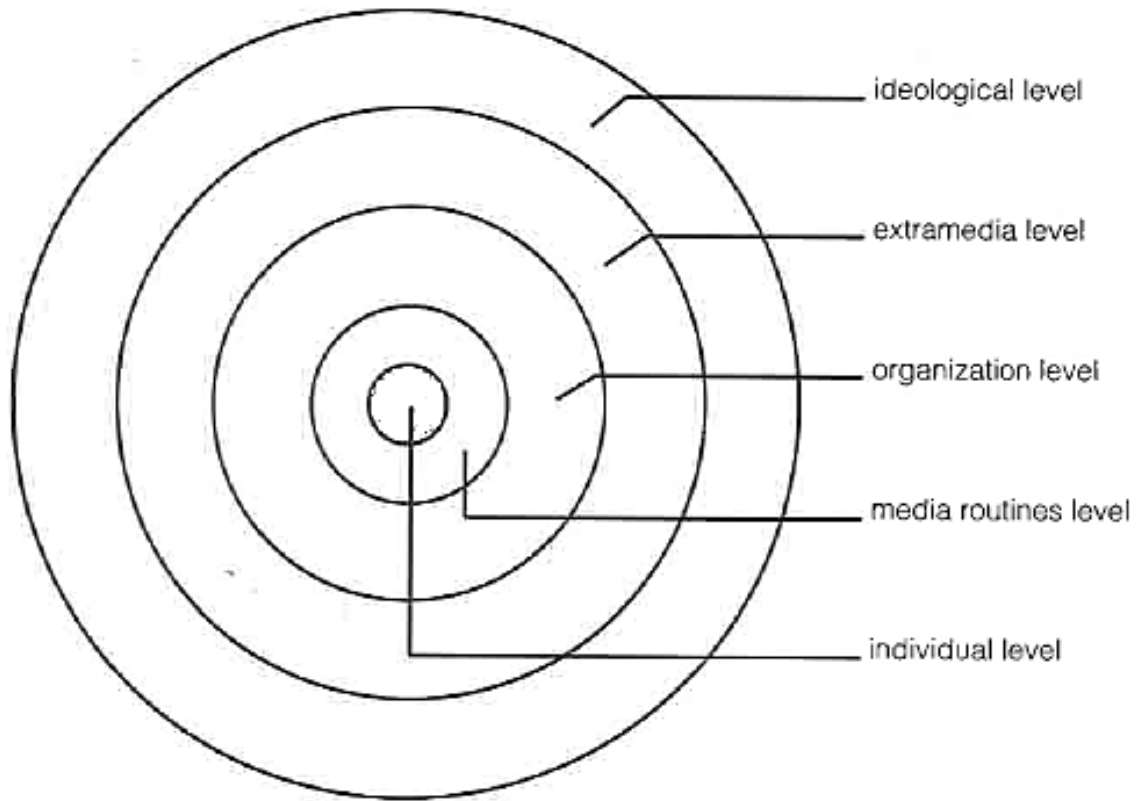
messages in mass media outlets. In doing so, she followed the same logic as Brown in his suggestion that Kurt Lewin's full field theory provided the key framework for understanding the complete gatekeeping process. First, in a book called "*Gatekeeping*," Shoemaker described media gatekeeping as a process that follows the principles of Lewin's field theory in which a holistic, multivariate set of influences drives the construction of media messages that appear in mass media outlets. That is, Shoemaker wrote, the construction of media messages about current events could be understood as the product of numerous, simultaneously occurring types of holistic influence from numerous micro, mezzo, and macro level "gatekeepers" and "impartial rules." As Shoemaker noted then, when White had chosen to focus only on the role of editors in the gatekeeping process, he had effectively overlooked the multitudes of people and structural factors at work in the mass media message construction process. These impartial rules in the context of the news construction process refer to all of the various non-human influences on the process that could be understood to exist, including such factors as the routine practices developed by professional journalists, space limitations, and the publication deadlines that force media workers to make rapid and regular decisions about their gathering, writing, editing, and publishing of news. Beyond this, she noted, there are numerous people and groups who can be considered among the multiple gatekeepers in the total process.

#### **2.4a THE HIERARCHY OF INFLUENCES**

In a separate book also released in 1991, *Mediating the Message*, Shoemaker was joined by Stephen Reese as they synthesized decades of scholarship by researchers who had identified various kinds of influence on the construction of media messages that went beyond White's original narrow conception of gatekeeping. They expanded upon the taxonomy of multivariate influences that Shoemaker had already described in her 1991 book, discussing five different micro, mezzo, and macro level layers of influence that could be understood as comprising a "hierarchy of influences" that collectively affect the production of the media messages that reach the public. From that original 1991 formulation of the hierarchy of influences until Shoemaker's and Vos's (2009) recent book "Gatekeeping Theory," the hierarchy of influences model went relatively unchanged, with tweaks to the names of the levels of analysis and some updating of the explanations of each level. Each of these levels of influence have stood as a category of analysis for the type of influence on the gatekeeping process that the researcher must consider and may want to observe and analyze as part of understanding the overall gatekeeping process. **Figure 2.4** is Shoemaker and Reese's visual representation of the hierarchy of influences model that which was somewhat updated by Shoemaker and Vos (2009) while preserving the basic conceptual framework of the model.

Briefly, the *first level*, (1) the *individual level of analysis*, acknowledges that individual journalists and editors make some subjective decisions in deciding what's

Figure 2.4 - The hierarchy of influences model as it was visualized in 1991



From: Shoemaker, P. & Reese, S. (1991). *Mediating the message: Theories of influences on mass media content*. New York: Longman

news. This was the level of the gatekeeping process that White had identified in his original study. The *second level*, (2) the *media routines level of analysis*, recognizes in that there are also factors related to the demands of publication deadlines and professional writing and editing routines that influence the process that determines what is newsworthy. Gieber (1956), had long ago recognized this second level of influence in which recognized that news editors are “caught in a strait jacket of mechanical details”

(1956, p. 432) in the form of institutional pressures that make the editors' own personal views less significant than they may seem to be on the surface. Shoemaker (1991) later offered a more complete description of the psychological factors that influence the decisions that media workers make in deciding what's news, including things like the media worker's values, attitudes, and ethics; the particular type of media work job; how the worker is socialized within his or her organizations; plus several other personal psychological characteristics.

The *third level*, (3) the *organizational level of analysis*, involves the influences that derive from the particular news organization—influences that are unique from one organization to another. Westley and MacLean (1957) and McNelly (1959) had been among the first scholars to recognize that the influences on the process of deciding the news that would appear in a particular news organization's access outlet were to some extent influenced by the particular conditions within the particular news organization. In effect, their findings recognized that the information filtering process happens somewhat differently across organizations.

The *fourth level*, (4) updated by Shoemaker and Vos (2009) as *the social institution level of analysis* (previously called *the extramedia level*), recognized that to some extent all organizations have some of the same kinds of influence on the gatekeeping process. These constant influences across all news organizations can be seen as deriving from profit maximization pressures including demands from advertisers and



stockholders as well as pressures from official government sources or interest groups about what should or should not be disclosed in news reports. Shoemaker and Vos (2009) cite Ben Bagdikian's work in which he has tracked the increased concentration of US media ownership over the last several decades as representative of this level of analysis.

The *fifth level* of analysis, (5) the *social system level of analysis* (previously the *ideological level*), acknowledges in a broad sense that media is created for a specific geographically oriented culture, its ideology, and the social structure of that society. As such, this level of analysis recognizes that there are various pressures of as to what information should or should not be reported in mass media outlets that derive from the broad public sphere as a whole. These pressures may derive the demands made by informal sources for news reports, market pressures, government officials, interest groups, other media, and audiences—although Shoemaker acknowledges some debate about the extent to which audiences actually could be recognized to influence the process.

Taken together, the two books by Shoemaker (1991) and Shoemaker and Reese (1991) offered the first version of what might be called a unified gatekeeping theory for the study of how media messages are constructed. The theory and the hierarchical model of influences on media content set up a framework for scholars to use for the empirical study of the gatekeeping process through methods such as surveys and interviews of media workers about how they make editing or publication decisions, analysis of ownership structures of the media, or various forms of content analysis that assess the

outcome of media production forces. As Shoemaker and others have described the theory, these and other research methods can be used to study the various factors that influence the production of media content, a process in which media content is the dependent variable in a multivariate gatekeeping process.

## **2.5 ARE THERE “GATEKEEPERS” IN THE 21ST CENTURY MEDIA ENVIRONMENT?**

The technological barriers that once prevented anyone outside of traditional media organizations from directly contributing to the gatekeeping process are gone today. This is primarily because the internet and its associated technologies afford anyone with the basic tools for having the potential to directly influence the gatekeeping process. This shift makes it necessary to consider what these changes mean for the modern study of this gatekeeping process that I have described above. In their most recent full discussion of gatekeeping theory, Shoemaker and Vos (2009) note that “some have predicted that the idea of gatekeeping is now dead, a concept made moribund by the internet” (p. 130). In one form of this argument, for example, the co-founder of *Facebook*, Shawn Parker, wrote in an online blog referenced by many popular online media outlets that the development of the modern media environment has meant “the removal of the media ‘gatekeepers’,” (Parker, 2013, para. 74). Similarly, given Kovach’s and Rosenstiel’s (2001) definition of journalistic gatekeeping as “deciding what information the public should know and what it should not,” they suggest that there are “no longer gatekeepers” (p. 95). And Williams and Carpini (2000) put it as follows:

The new media environment, by providing virtually unlimited sources of political information (although these sources do not provide anything like an unlimited number of perspectives), undermines the idea that there are discrete gates through which political information passes: if there are no gates, there can be no gatekeepers (p. 6).

Such conceptions of gatekeeping are limited, however, in that they emphasize the metaphorical meaning behind the idea of media gatekeepers as amounting to total control of the public's access to news and information. But even in the 20<sup>th</sup> century media model, any given media company did not actually have complete control of determining the news that the public could access. Rather, a major feature of that media model was the broad public's lack of control over the mediated communication that they could access. But as the gatekeeping process was described by the hierarchy of influences model, actors from across the entire of the public sphere (1989)—from different media workers to private companies to political elites to the public's general ideology itself in that era—have always been understood to have some degree of influence on the production content of the mass media.

In a different but also reductionist conception of the gatekeeping concept, Markos Moulitsas Zuniga from *The Daily Kos* blog has suggested that “now everybody's a gatekeeper” (Tweney, 2007, para. 29). And even in their exhaustive efforts to describe the way the gatekeeping process has changed, Shoemaker and Vos follow in the tendency to use the gatekeeper term in a way that arguably reduces its theoretical meaning, suggesting that “the internet now allows anyone to become a gatekeeper by passing along

news items and commenting on them in many web sites, such as Digg.com, Reddit.com, YouTube, and Facebook” (p. 124). Like the assertions that there are no longer gatekeepers, statements that everybody is a gatekeeper are problematic because they conceive of gatekeepers in atheoretical, one-dimensional terms. In this latter case, the implication is that a gatekeeper is simply everyone who does some degree of filtering and passing on of information for others to read.

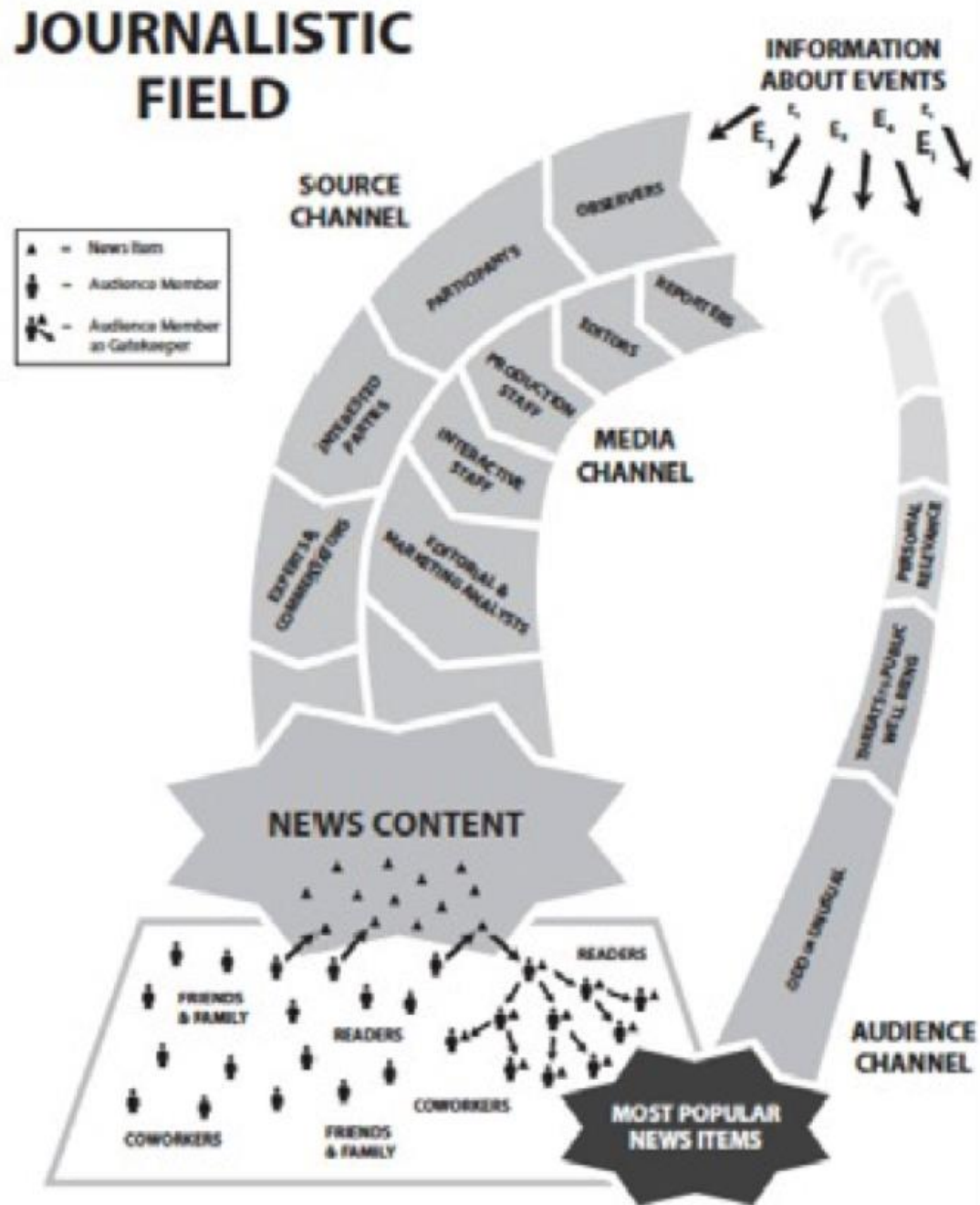
Thus, the suggestion that there are no longer gatekeepers in the modern media environment represents a flawed focus on the metaphorical notion of gatekeeping—it is a simple and salient way of saying that traditional mass media organizations no longer have the same level of control that they once had over the processes of gathering, selection, crafting, and framing of the news that the public can access. And the argument that “everyone is a gatekeeper” reduces the term to suggest that we are all information filterers for the rest of the public. It is true that everyone has a different role in today’s media environment as active audience members who have greater flexibility in selecting which specific news sources and stories they want to consume as they scan the daily news. But this does not make them gatekeepers in what was in the past and still is the most important theoretical sense of the term—the notion that media gatekeepers are central, particularly influential and generally trusted entities within the processes of widespread information diffusion about current events and issues.

In their explanation of how the gatekeeping process had changed with the

development of the internet, Shoemaker and Vos recently wrote that new opportunities for audience input into the gatekeeping process have disrupted some of the traditional underlying assumptions of gatekeeping theory. In the communication model that like the one previously suggested by Westley and MacLean (1957) (see **Figure 2.2**), Shoemaker and Vos (2009) write that audiences only had limited potential for feedback. Their most significant update to the underlying communication model for the gatekeeping process today, then, is the suggestion that a direct “audience gatekeeping channel” has been added to a gatekeeping process (see **Figure 2.5**). That is, they write, through features on news websites such as automated ways to share news articles via email, audiences can pass along news to other people more efficiently than ever before. But their discussion of the changes in the media environment during the development of the internet and its associated technologies is limited in that it stops short of considering changes in the overall structure of the gatekeeping process. That is, they do not consider what it means that the gatekeeping process is now happening within a networked public communication system. Ultimately then, Shoemaker and Vos acknowledge that the development of a theory and methods for studying gatekeeping process today requires new research:

The challenge is for scholars to think creatively about applying the theory to a changing world and to adapt research methodology that keeps pace. It makes little sense to study a changing media landscape with methods developed to study printed newspapers in the pre-computer era. New software is necessary to capture information about ephemeral, always changing internet sites, and we also need advances in ways to analyze the content (p. 130).

Figure 2.5 - Shoemaker's and Vos's (2009) depiction of 21st century gatekeeping



From: Shoemaker and Vos (2009). *Gatekeeping Theory*. New York: Routledge.

## CHAPTER 3. GATEKEEPING FROM A NETWORK PERSPECTIVE

### 3.1 WHAT IS A SOCIAL NETWORK?

As Knoke and Yang (2008) describe it, “a social network is a structure composed of a set of actors, some of whose members are connected by a set of one or more relations” (p. 8). These actors are sometimes also called nodes or entities or vertices and they can represent people or organizations. The relations in a network are also sometimes called ties or edges. Notably, a social network (sometimes also called a social graph, especially in reference to visual depictions of networks) can be any system that is made up of at least two nodes and technically requires no ties between these nodes.

Elaborating on the characteristics of a social network, Knoke and Yang write that “the network perspective emphasizes structural relations as its key orienting principle” (*italics in original*) (p. 4). That is, “network analysis explicitly assumes that actors participate in social systems connecting them to other actors, whose relations comprise important influences on one another’s behaviors” (p. 4).

Importantly then, while various kinds of social network sites on the internet have developed and proliferated on in recent years and have come to represent popular understanding of social networks, it is important to emphasize, first, that our understanding of social networks long predates the social network sites on the internet. That is that a social network can be any group of entities—people or organizations—connected by any kinds of “relations” that the researcher might deem worthy of

observing and analyzing as the ties in the social network. These relations may include direct communication, either mediated or face-to-face, but they may also involve recognized connections between organizations with common properties. Relations may even more simply represent acquaintanceship or familiarity among persons.

Moreover, it is especially notable that the use of social network analysis for the investigation of meaningful patterns in social relations has a long history dating back to the first half of 20th century. Indeed, scholars began to understand long ago that the total number of relations (aka ties or edges) or lack thereof between actors (aka nodes or vertices or entities) in a social network and how these relations are distributed can reveal important characteristics about the actors in a group and the overall dynamics of a group's structure. As Knoke and Yang explain the methodological utility of social network analysis:

If social network analysis were just a conceptual framework for describing how a set of actors is linked together, it would not have excited so much interest and effort among social researchers. But as an integrated set of theoretical concepts and analytic methods, social network analysis offers more than accurate representations. It proposes that, because network structures affect both the individual and systemic levels of analysis, network analysis can explain variation in structural relations and their consequences (p. 9).

According to Knoke and Yang then, the idea of social networks and social network analysis were increasingly discussed in both scholarly and popular contexts starting especially in the 1970s, with a gradual but exponential increase in its use by researchers in the ensuing decades. There are various reasons why this method has



grown in use, but one specific utility of social network analysis has come from scholars studying various kinds of internet-mediated communication. Probably the first use of social network analysis for the study of internet-mediated relations was Freeman's (1984) early analysis of relations among a group of scientists in the experimental internet-based *Electronic Information Exchange Network*. Later examples have included the study of social networks based on relations established through e-mail (Haythornwaite, 1996), online hyperlinks (Huberman & Adamic, 1998; Kleinberg, 1997), and by social network sites (Adamic, Buyukkokten, & Adar, 2003; Kwak, Lee, Park, and Moon, 2010; Ghosh and Lerman, 2010; Adamic, Bakshy, Hofman, Mason, & Watts, 2011). Much of this still relatively early online social network analysis scholarship has been conducted by computer scientists working outside of the traditional mass communication research discipline in which gatekeeping theory for the study of the news media has been developed.

### **3.2 WHEN GATEKEEPING BECOMES A NETWORKED PROCESS**

More recently, some scholars who have been trained inside of journalism and mass communication programs have taken to studying gatekeeping as a function of communication via online social network sites, including Meraz and Papacharissi (2013). Additionally, Bruns (2012) has moved the study of the role of journalists online from one of gatekeeping to "gatewatching." Still, these scholars have not delved into the fundamental theoretical considerations for conceptualizing the shift from a 20<sup>th</sup> century

mass media dominated gatekeeping theory to a full networked gatekeeping theory.

Further, the most recent full conceptualization of gatekeeping theory by Shoemaker and Vos (2009) does not fully explore gatekeeping as a function of the network structure of the internet. Specifically, extant gatekeeping theory as Shoemaker and Vos describe it still mostly retains its basis in a linear transmission model of communication that has been fundamentally altered through the advanced development and social construction of the internet as a platform for mediated public communication.

But what does it mean to say that the gatekeeping process has become based on the structural relations of a network? If internet-based communication and information exchanges enable a kind of virtual social connectivity that was previously impossible such that everyone is now connected to each other in a dense network, why doesn't this mean then—as some media observers have suggested—that today there are no gatekeepers (Kovach and Rosenstiel, 2001; Parker, 2013; Williams and Carpini, 2000) or, conversely, that everybody is their own gatekeeper (Moulitsas, as cited by Tweney, 2007, Shoemaker and Vos, 2009)? And if being a gatekeeper no longer means having control over access to information or simply filtering information, then what does it mean in a networked media environment? Shoemaker (1991) found that the key to understanding the gatekeeping process lay in the foundational work of the social-psychologist Kurt Lewin. Here then too, a return to Lewin's work as the theoretical basis of gatekeeping theory is again useful towards a new conceptualization and methodological

considerations for the study of gatekeeping as a networked process. Indeed, extending from Kurt Lewin's basic approach to social science research, there is a consequential intersection between the origins of gatekeeping theory and the origins of social network analysis. This connection provides a salient means of establishing how some of the established principles and methods of social network analysis can be used to envision and study a new kind of gatekeeping process in which public news messages are created and disseminated in new ways today via online social networks.

### **3.3 LEWIN'S PLACE IN THE DEVELOPMENT OF SOCIAL NETWORK ANALYSIS**

Freeman (2004) and Scott (2013) offer mostly parallel renderings of the history of social network analysis. Each writes that the major origins of social network analysis are located in several strands of independently developed scholarship from the 1930s and 40s. The earliest research that featured all of the fundamental characteristics of modern social network analysis was the joint work of Jacob L. Moreno—a psychiatrist who, like Kurt Lewin, was connected to the Gestalt psychology movement—and Helen Jennings, a psychologist. In a second strand of research separate from that of Moreno's and Jennings's work, a group of scholars from the anthropology and business schools at Harvard University lead by anthropologist W. Lloyd Warner also conducted research in the 1930s using methods that carried some of the basic characteristics of social network analysis (as Knoke and Yang, 2008). But then beyond the importance of the work by Moreno and Jennings and by Warner for the formation of the theories and methods used

in modern social network analysis, Freeman and Scott also point to Kurt Lewin's work as a third of three significant early and independently developed bodies of research that laid the foundation for the development of social network analysis.

Understanding Lewin's place in the development of theoretical concepts and methods for social network analysis starts with considering his early exposure to the work of several prominent pioneers in the Gestalt psychology movement during his doctoral studies at the University of Berlin. Among the architects of Gestalt psychology were Lewin's doctoral advisor Carl Stumpf, along with other famed psychologists Lewin learned from at Berlin including Max Wertheimer, Kurt Koffka, Wolfgang Kohler and Ernst Cassirer (Gold and Lewin, 1999). Wertheimer (1938) explained the logic behind Gestalt psychology as follows:

There are wholes, the behaviour of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole. It is the hope of Gestalt theory to determine the nature of such wholes (p. 2).

Or, as Lewin (1936) himself explained the gestalt approach, it is based on the idea that "the whole is different than the sum of its parts" (p. 885)

Towards a clear understanding of the particular importance of Gestalt psychology in its time for the development of a better understanding of human behavior, it is helpful to draw a distinction between the behavioral psychologists whose perspective had been dominant for most of the first half of the 20<sup>th</sup> century and the Gestaltists who sought to challenge that dominant perspective. Bavelas (1948) explained this difference as follows:

One group followed the path of breaking down the person and the situation into elements and attempting to explain behavior in terms of simple causal relationships. The other group attempted to explain behavior as a function of groups of factors constituting a dynamic whole—the psychological field (p. 16).

Over time, as it became necessary to build theory and methods to test the assumptions behind the gestalt approach, Lewin and his colleagues from the gestalt tradition eventually saw the limits of its basic principle of holism for the approach to understanding human behavior. As Gold (see Gold and Lewin, 1999) puts it, Lewin and other proponents of gestaltism grew to become dissatisfied with this generalized approach to theory which “often seemed to consist of only waving one’s arm broadly in explanation of a puzzling phenomenon” (p. 9). As Gold (1999), as well as Reese and Ballinger (2001) each explain then, Lewin’s primary research project was grounded in his desire to adopt some of the mathematical principles of physics towards understanding psychological processes in holistic terms. Indeed, as Shoemaker and Vos (2009) note, Lewin himself suggested a desire to apply some of the principles from Einstein’s field theory for physics to the study of how human behavior is influenced by interactions in the social environment.

### **3.3a LEWIN’S RESEARCH PROGRAM**

Lewin began to make his mark on social science research in the United States after emigrating from his native Germany to escape persecution as a Jewish person as the Nazis rose to power. For much of the 1930s and early 1940s at the University of Iowa, he

built a reputation as a popular teacher and proficient researcher, attracting many students to his ideas for studying psychology with his unique gestalt-based approach (see Lewin and Gold, 1999). Gradually, his work gained significant attention around the country, eventually gaining the notice of administrators at the Massachusetts Institute of Technology who recruited him there to start his own research laboratory. Lewin started the Research Center for Group Dynamics (RCGD) at MIT in 1945, beginning a productive period of research there with an impressive group of researchers around him. But after only a short time at MIT, Lewin died suddenly of a heart attack in 1947 at just 56 years old. Upon his death, administrators at MIT decided that Lewin's loss as the driving force behind the research group meant that they could no longer support the RCGD (Freeman, 2004).

As Freeman (2004) notes, among the former students or colleagues of Lewin's who had followed him from Iowa to MIT were Dorwin Cartwright, Leon Festinger, and Alex Bavelas, all scholars primarily in social psychology who would eventually go on to make contributions to the development of social network analysis. After Lewin's death, some of Lewin's former students and colleagues, including Alex Bavelas, remained at MIT. Others, including Cartwright and Festinger, found a new home for the RCGD at the University of Michigan.

### **3.3b LEWIN'S SCHOLARLY DESCENDANTS**

In a series of articles that appeared in the years after Lewin's death, we can begin

to see that his former students and other colleagues at MIT had started to seek the assistance of scholars with mathematics backgrounds for the study of social relations. For one, as Freeman (2004) notes, Bavelas found two students—R. Duncan Luce and Albert Perry—a mathematician and a mechanical engineer, respectively, to work with him at MIT. In 1949 they wrote the paper, *A Method of Matrix Analysis of Group Structure*, that Freeman (2004) calls “one of the most important in social network analysis.” In this paper they identified the concept of “cliques” in social groups and in doing so, they recognized the general importance of small, highly cohesive clusters in the analysis of social networks. Further, Bavelas, along with some of his students including Harold Leavitt (1951), wrote several articles developing Lewin’s ideas, including a 1950 piece in which Bavelas formally introduced the concept of network centrality and a later piece in which Leavitt (1951) conducted experiments to demonstrate the importance of the centrality concept for understanding group dynamics.

Other students of Lewin, including Cartwright and Festinger who landed at the University of Michigan, also sought out assistance from mathematical collaborators to further develop a mathematical model for the study of human behavior based on the basic field theory approach they had learned from Lewin. Two mathematicians that they recruited, Frank Harary and Robert Z. Norman, helped them to identify that the work of Lewin and Bavelas contained the basic elements of graph theory, then a relatively young area of mathematics that had been unfamiliar to Lewin and Bavelas (Freeman, 2004).

With Cartwright's encouragement to explain how graph theory could be used for social science research, Harary and Norman (1953) wrote a pioneering work in the development of social network analysis, *Graph Theory as a Mathematical Model in Social Science*. Some years later Harary, Norman, and Cartwright (1965) went on to write what Freeman calls one of the most important books for the development of social network analysis, *Structural Models: An Introduction to the Theory of Directed Graphs*.

That the lineage of social network analysis is traceable directly through Lewin and several of his scholarly descendants helps to reveal that what Lewin was talking about when he discussed concepts like the psychological field and gatekeepers were concepts of group structure that envision social life as a network. As Freeman (2004) writes, the scholarship starting with Lewin's development of field theory and his gatekeeper concept and down through his students and their students ultimately lead to the development of several important ideas that became critical for modern social network analysis. Of particular significance were their concepts of relative network centrality and network cliques. Through this lineage then, it becomes clear that graph theory and social network analysis provide the conceptual and methodological frameworks which explain what Lewin was attempting to develop in his effort to create a field theory for understanding human behavior. Below, a brief description of Bavelas's work in his development of the idea of network centrality is useful both for clearly describing the connection that Lewin's work has to social network analysis *and* for



illustrating some of the fundamental principles that are useful for reaching an understanding of the principle of network centrality at its most basic level.

### **3.4 CONNECTING LEWIN TO MODERN SOCIAL NETWORK ANALYSIS**

Throughout his research, Lewin sought to apply concepts from mathematics and the physical sciences to better understand the holistic aspects of human psychology, an approach that became the basis for his field theory (Harary and Norman, 1953). He developed several different concepts and frameworks for understanding psychology holistically, including the idea of a “topological psychology” which he derived from the non-traditional, non-Euclidian geometric principles of topology—a branch of math that he suggested could be useful for understanding psychology in terms of the dynamics of social relations. This non-Euclidian geometric approach was useful because it employed the notion that there are differential forces of influence within the psychological life space—vectors—that can be understood to have unique direction and magnitude (Bavelas, 1948). To explain it another way, whereas Euclidean geometry is the standard geometry which deals in symmetric shapes such as squares and circles, non-Euclidean geometric spaces are asymmetrical and recognize changes over time. Hypothetically then, a Euclidean view of a person’s social environment implicitly assumed that everyone has the same life space and that therefore, such a model implicitly held that the social world would have no measurable impact on a person’s behavior. This was the implicit assumption of behavioral psychologists about the social environment. Given that

Lewin's vision of the life space was one in which different forces in the field had different influence on a person's behavior and that the make-up of the life space was dynamic, a non-Euclidean branch of geometry was appropriate for conceptualizing Lewin's topological psychology.

Cartwright (see preface to Harary and Norman, 1953) noted that Lewin was among the earliest group of social scientists who had sought to use highly specialized branches of mathematics to develop social science theory. According to Harary and Norman, however, topology was not the ideal branch of mathematics for Lewin's ideas. Indeed, his topological psychology—which he called “hodology”—did not last as a significant framework within the field of psychology and many of his ideas were left incomplete. Indeed, Harary and Norman suggested, Lewin's mathematical conception for his “life space” was better realized through the basic principles of graph theory applied to social science. Barnes (1969) later similarly echoed Bavelas and Harary and Norman in suggesting that Lewin's notion of psychology based on topology was on the right track but ultimately “inadequate for the representation of social configurations” (p. 220). Barnes agreed then that graph theory offered a better set of mathematical principles for representing Lewin's idea of a life space and field theory.

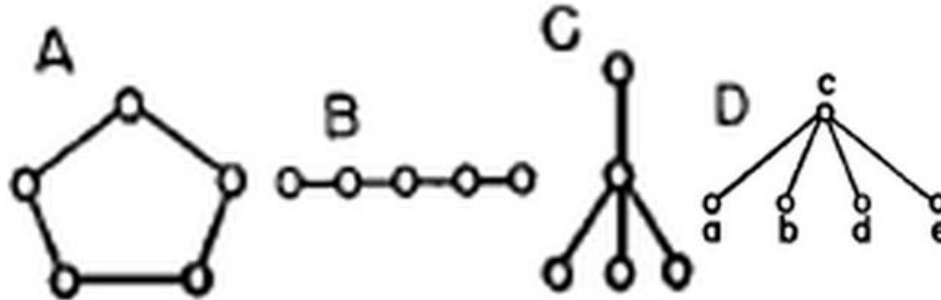
### **3.4a NETWORK CENTRALITY**

Bavelas's work—along with some of his students including most notably Harold Leavitt—seems to offer the most direct representation of the direction Lewin was moving

with his field theory and his particular gatekeeping concept before his death. In a 1950 theoretical article, *Communication Patterns in Task-Oriented Groups*, Bavelas introduced the concept of network centrality. With this article, Bavelas's objective was to understand how the working relationships within a group structure could be said to affect the group's overall performance. Noting that communication is essential to group work, Bavelas wrote in particular that "quite aside from a consideration of the effects of communication on what is generally called 'morale,' it may be easily demonstrated that for entire classes of tasks any hope of success depends upon an effective flow of information" (p. 725). Bavelas suggested that there may be certain patterns of communication that will optimize group performance (note that while there was no widely used nomenclature for social network analysis at the time of Bavelas's study, I will discuss Bavelas's research using common modern social network analysis terms).

To illustrate his example of possible group structures (in today's terms, the term "graph" is used for these visualization), Bavelas proposed four distinct hypothetical group configurations that imagined different possible structures for interaction among the members of small groups. He suggested that ultimately, certain group configurations could be better than others for facilitating the efficient flow of information (see **Figure 3.1** for Bavelas's four examples of patterns of possible group communication configurations among a group of five people).

Figure 3.1 - Bavelas's four example patterns of group communication structures



From Bavelas, A. (1950) Communication patterns in task-oriented groups. The Journal of the Acoustical Society of America. 22(6). 725-730.

Over time, social network analysts have identified several concepts beyond the basic elements of nodes and ties that are helpful to define when discussing a social network. First, according to Knoke and Yang, a *walk* is “an alternating sequence of incident nodes and lines, in which each node is incident with its preceding following lines.” They add that “a walk length is the number of lines it contains” (p. 47). Next, they define a *path* as “a walk with entirely distinct nodes and lines (no node or line can be included more than once)” (p. 48). Also of relevance here then is the concept of *path distance*, which Knoke and Yang define as “the length of a path (the number of lines in its walk)” (p. 48). Finally then, they define the concept of *geodesic distance* as “the length of the shortest path between two actors” (p. 60).

In his research, Bavelas suggested several important ideas about network structure from his hypothetical examples of group interactivity configurations. For one, he noted that within each graph there are quantifiable “distances” between each pair of nodes

based on the number of ties between each node. This concept of distance remains important in social network analysis today. If two nodes have a communication tie between one another, such as with node C and node A in Graph D in Figure 3.1 (above), they can be said to have a distance of 1 from each other. The distance between any other two nodes in Graph D such as A and B is no greater than 2 communication ties. **Table 3.2** shows Bavelas's calculations of the geodesic distance between each of the five group members in Graph D.

*Figure 3.2 - Distance between each of the group members in example D, Figure 2.6*

<b><i>a, b=2</i></b>	<b><i>b, a=2</i></b>	<b><i>c, a=1</i></b>	<b><i>d, a=2</i></b>	<b><i>e, a=2</i></b>
<b><i>a, c=1</i></b>	<b><i>b, c=1</i></b>	<b><i>c, b=1</i></b>	<b><i>d, b=2</i></b>	<b><i>e, b=2</i></b>
<b><i>a, d=2</i></b>	<b><i>b, d=2</i></b>	<b><i>c, d=1</i></b>	<b><i>d, c=1</i></b>	<b><i>e, c=1</i></b>
<b><i>a, e=2</i></b>	<b><i>b, e=2</i></b>	<b><i>c, e=1</i></b>	<b><i>d, e=2</i></b>	<b><i>e, d=2</i></b>
<b>Sum: 7</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>7</b>

**The total of all distances in pattern D is 32.**

From Bavelas, A. (1950) Communication patterns in task-oriented groups. The Journal of the Acoustical Society of America. 22(6). 725-730.

As Bavelas notes, while the total of all distances between the pairs of nodes in graph D is 32, the total distances between all pairs of nodes in these graphs of five nodes are different: the total sum of the distances between all pairs of nodes for graph A is 30, for graph B the total is 40, and for graph C the total is 32. As Bavelas suggests, many people intuitively see graph D as an autocratic group structure, with only one node connected directly to all other nodes and no other nodes directly connected to one another. At the same time, Bavelas writes, people will then tend to see graph C as a

common structure for a business, with a business owner on the top and a manager in between the owner and the workers beneath the manager. But Bavelas notes that while the nodes and ties in graphs D and C are arranged differently to appear as either an autocratic structure or as a typical business is structure, the structure of graphs C and D is actually the same. That is, in each graph only one node is connected directly by one communication tie everyone else and a geodesic distance of 2 between each of the other nodes in the group. As we will see below then, this example illustrates that regardless of how some organization might be hierarchically structured, , the most influential and important node is not necessarily at the top of a hierarchy but rather, at the center of some set of nodes.

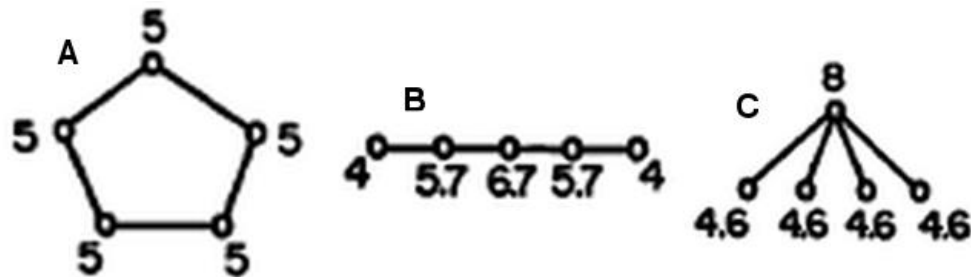
Bavelas went on to suggest then that within each of these group structures, each of the nodes can be calculated to have a measure of what he called relative centrality. He proposed a calculation for relative centrality as the ratio of the total geodesic distance of a graph divided by the given node's total distance from all other points in the graph.<sup>1</sup> So for instance, because the geodesic distance of graph A is 6 and the total geodesic distance for the five nodes is 30, the centrality of each node in graph A is 5. The same calculation can be used to calculate the relative centrality of each node in each of the example

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<sup>1</sup> Later, relative centrality would also become known as Bavelas-Leavitt centrality.

graphs. **Figure 3.3** again shows each of Bavelas's hypothetical graphs that also appeared in Figure 3.1, here with the centrality measures provided for each of the nodes).

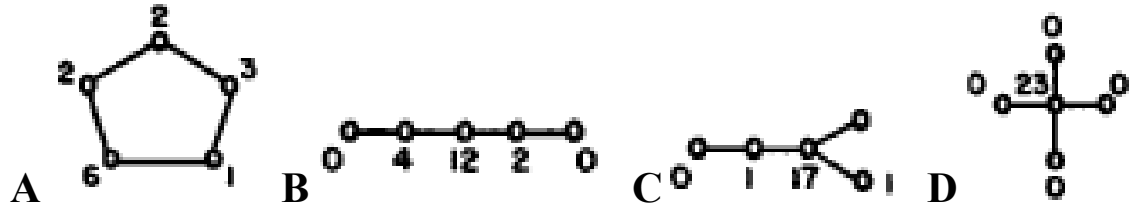
*Figure 3.3 - Bavelas's example graphs with relative centrality metrics for each node*



From Bavelas, A. (1950) Communication patterns in task-oriented groups. The Journal of the Acoustical Society of America. 22(6). 725-730.

Bavelas, along with some of his students—particularly Harold Leavitt (1951)—conducted experiments to test how studying group structure and specifically the centrality metric might be useful as analytical tools for understanding the performance of groups. Among these experiments were situations in which the researchers assigned several groups the same set of specific group problems with the condition that groups could only pass notes to each other. Through their organically developed communication patterns with one another, the structure of the groups that emerged within these groups are visualized in the graph in **Figure 3.4** (here, the centrality metrics marked for each node represent the frequency with which a given person represented by a given node was identified as a leader in solving the particular problem).

Figure 3.4 - Link structure of four groups in experiment described by Leavitt (1951)



From Bavelas, A. (1950) Communication patterns in task-oriented groups. The Journal of the Acoustical Society of America. 22(6). 725-730.

The main findings of these experiments were that group performance was clearly affected by specific characteristics of the groups' structures. The group that became structured in the way that graph A depicts, with no central leader emerging, had the worst error rate and lowest overall morale of all groups. Generally, too, this experiment and others like it revealed that having clearer identified leadership in a group was correlated to a lower error rate in the completion of the assigned problem.

Social network analysis expert Linton Freeman (1980) points to Bavelas's study described here, along with the follow-up experiments by Leavitt, as the work that formally introduced the centrality concept and identified its importance for understanding social structure. Further, Freeman writes that Bavelas's analysis of structural group relations and the emphasis on centrality as important concept was essentially an extension of and improvement upon Lewin's more limited conceptual notion of field theory and gatekeepers within small group communication networks. While Bavelas did not articulate a direct connection between his concept of centrality and Lewin's gatekeeper concept in this study, Freeman writes that Lewin's notion of a gatekeeper as he described



it, “sounds very much like the idea introduced by Bavelas. If not identical, these are at least very similar ideas. One might suspect that Bavelas was simply repeating his teacher’s insight and calling it centrality instead of gatekeeping” (p. 586). Similarly, Harary and Norman (1953) wrote that Bavelas’s (1950) effort here “condensed much of Lewin’s work, though essentially preserving Lewin’s terminology” (p. 3) having for the first time represented Lewin’s ideas in the basic context of graph theory. Notably, Freeman (1980) adds this about the gatekeeper concept:

While Lewin and subsequent users of the gatekeeper concept stress the idea of control of certain channels of communication, Bavelas, and others who refer to centrality, emphasize the potential of points for control of communication over the total network (p. 586)

Given that the principal concept in graph theory and social network analysis that corresponds to the gatekeeper concept is that of centrality, network centrality seems to have direct relevance for our interest in understanding how the gatekeeping process is changing in the 21<sup>st</sup> century networked media environment. The Bavelas-Leavitt measure of centrality is one among many algorithms that have been developed in the years since those original studies to identify different types of network centrality for the nodes in a graph. Scholars such as Freeman (1980) and Borgatti (see White and Borgatti, 1994; Borgatti and Everett, 2006) are among the most prominent researchers who have worked over the past several decades to develop new algorithms for calculating different types of centrality in the context of social networks.

The most basic form of centrality is degree centrality, which is simply the number

of total ties that are connected to a particular node. For a directed graph such as the communication networks that develop on social network sites like Twitter in which there may be non-reciprocal ties that are incoming or outgoing, the most basic centrality metrics are indegree and outdegree centrality. Other commonly used centrality metrics, each with a particular conceptual rationale, include betweenness, closeness, eigenvector, and PageRank centrality, among many others. The particular centrality metrics that may be pertinent for a particular study may vary and there may be a justification for discussing multiple forms of centrality in the context of a given study of the networked gatekeeping process.

While Freeman's (1980) betweenness centrality concept was developed with the idea that it is analogous to Lewin's gatekeeper concept, there are problems with calculating and interpreting betweenness centrality for the kind of directed communication networks that naturally exist within internet-mediated social network sites. The explanation and rationale for the specific centrality metric used for the social network analyses conducted for empirical study in this paper will be discussed later in the methods section of this paper in Chapter 7, section 7.2.

### **3.4b CLIQUES AND CLUSTERING**

Like Bavelas's identification of the importance of centrality within networks, the identification of the phenomenon of "cliques" within small groups by Luce and Perry (1949) was also a byproduct of a collaboration spearheaded by Bavelas to recruit a group

of mathematicians to bring their extensive knowledge of graph theory to assist in advancing the development of Lewin's field theory. The concept of cliques, then, and the related concept of network clusters, also became important concepts for the development of social network analysis and our understanding of the structure of social networks. As Luce and Perry explained the concept back then,

A subset of a group forms a clique provided that it consists of three or more members each in the symmetric relation to each other member of the subset, and provided further that there can be found no element outside the subset that is in the symmetric relation to each of the elements of the subset" (p. 110).

Thus, with the complete undirected ties among all members of a group that are the requisite properties of a clique, cliques can be said to have a maximum level of density or cohesiveness for a small social network.

As Knoke and Yang (2008) note, while cliques continue to have importance in the context of social networks, the concept of cliques is "stingy" in the sense that the strict requirements of a clique are that they be a completely connected network. Indeed, Knoke and Yang note that cliques in the analysis of real social networks are relatively rare given that just a single missing tie breaks up what would be a clique among an otherwise fully connected set of nodes. Over time then, social network analysts have noted the more common pattern in social networks that is closely related to cliques in which there tend to be many relatively small, highly connected small subgraphs of network actors that may not have perfect connectedness that is required by the clique definition. The concept of high cohesiveness or "clusters" in subgraphs, especially subgraphs of nodes with low

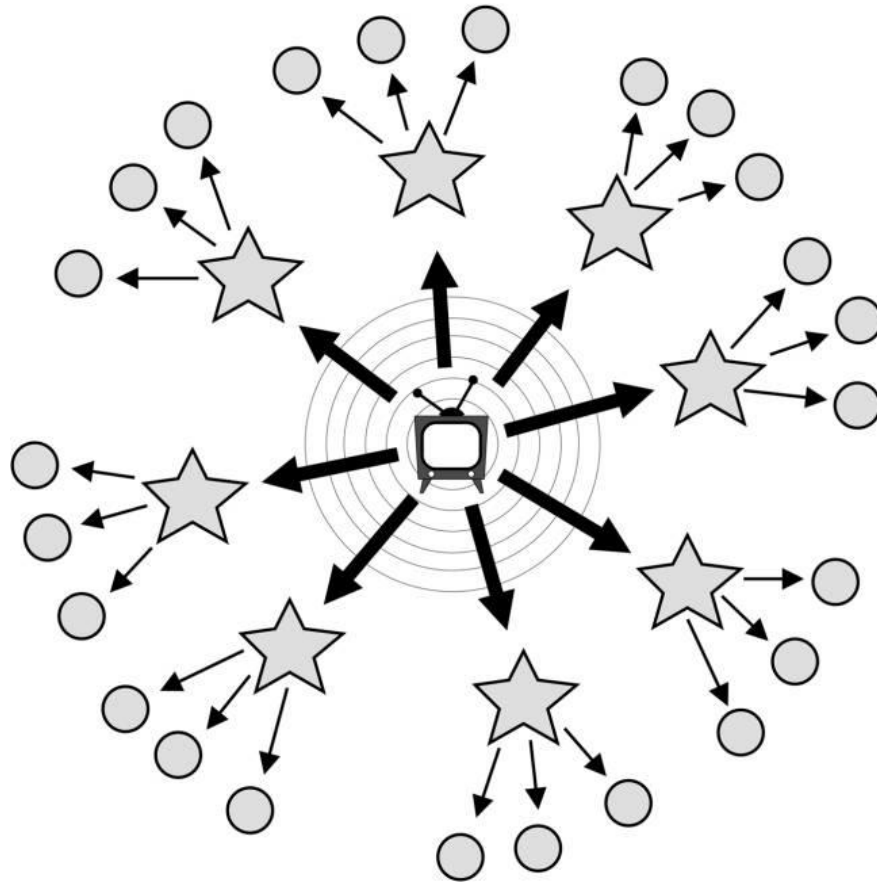
centrality, has thusly become important for studying and understanding the structure of social networks.

### 3.5 VISUALIZING GATEKEEPING WITHIN A NETWORK STRUCTURE

In a recent study which sought to understand the nature of structural change in the shift to an internet-mediated public communication system, sociologist Duncan Watts and mathematician Peter Dodds (Watts & Dodds, 2007) provided their own visualization of the way that information flow was understood within a 20<sup>th</sup> century media model. Specifically, their visualization of this arrangement is based upon the model suggested in 1955 by Katz and Lazarsfeld of a two-step flow of information influence. In an earlier study that provided the basis for the two-step flow hypothesis, Lazarsfeld, Berelson, and Gaudet (1940) had explained the two-step flow process as one in which “ideas, often, seem to flow *from* radio and print *to* opinion leaders and *from them* to the less active sections of the population” (p. 32, italics in original). **Figure 3.5** is the visualization suggested by Watts and Dodds for understanding the two-step flow of communication in the 20<sup>th</sup> century media environment.

Although we don’t usually think of the 20<sup>th</sup> century’s industrial-control model of communication as a networked communication model, this model suggested by Watts and Dodds essentially uses the basic structure of networks—nodes and ties—to conceptualize and visualize the 20<sup>th</sup> century media environment. Here, the image of the television in the center of the graph represents the structural position of the mass media within the 20<sup>th</sup>

Figure 3.5 - Watts's and Dodds's (2007) Visualization of Two-step Flow of Influence



Watts, D. J., & Dodds, P. S. (2007). Influentials, networks, and public opinion formation. *Journal of consumer research*, 34(4), 441-458.

century media model in which mass media organizations had only outgoing ties to audiences with opinion leaders as one-way receivers. Then, the ties between opinion leaders and the rest of the public are also unidirectional, asymmetric ties. The result is a highly hierarchical network in which the mass media organizations in the center have very high network *prestige*, which is to say that mass media platforms within that media system

were highly central in this network but not at all engaged as receivers of incoming communication from the rest of the public sphere.

Conversely, in a 21<sup>st</sup> century model for understanding the modern gatekeeping process, instead of mediated public communication going almost entirely in a one way direction from mass media organizations to audiences, mediated public communication is now multi-directional among a network of entities. But what does this mean? As Singer (2010) notes, popular understanding about the changes in the media system brought about by the development of internet-centric communication technologies have often seemed to start and end with a basic understanding of the internet as a converged and interactive multimedia space. Further, Singer suggests that many journalists have been very slow to recognize the most significant change in this shift: that their work is now operating as part of a networked process. Indeed, misunderstanding of what this means has long abounded.

One popular argument about the internet suggested especially during the early years of internet research by some media observers such as Rheingold (1996) and Barlow (1996) was the idea that the internet can make the public sphere more egalitarian and thus, more democratic. An analogous argument during the development of the internet has been the basic suggestion that either nobody is a gatekeeper or everybody is a gatekeeper. Once again, such arguments are also based upon a simple understanding of network structure that sees networks as essentially flat, absent of hierarchical structure. This view seems to be based upon an overly simplistic notion of new media which sees that because of the

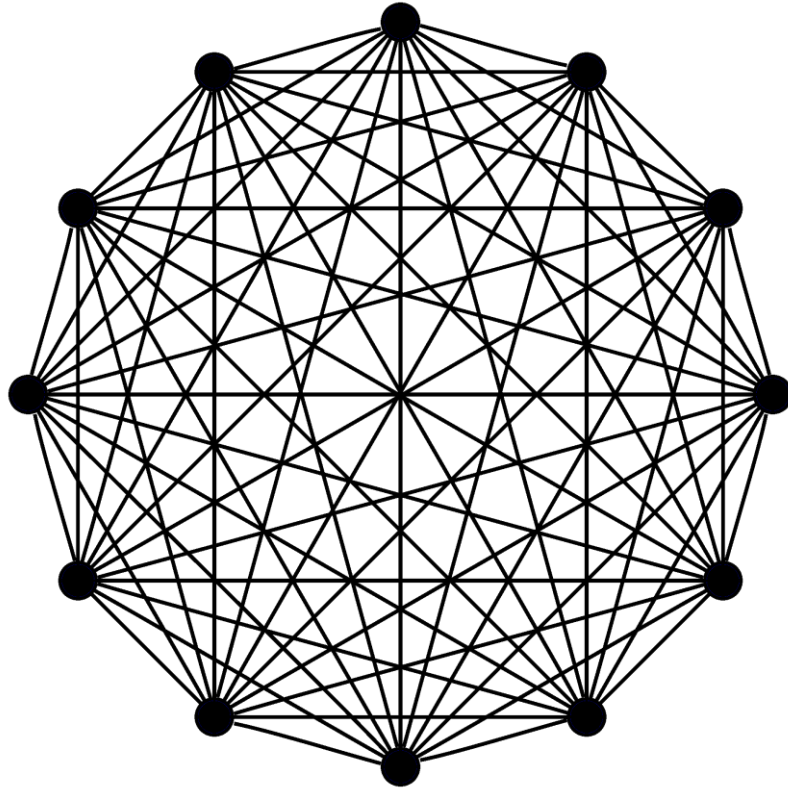
internet, “everybody is connected.” That is, according to this view, the basic technological connectedness of all computers via the internet means that everyone is on equal footing in the networked public communication model.

In hindsight, it seems that this notion which envisions the internet as an equalizer of influence amounts to a conception of the internet as a social network that—in graph theory parlance—approaches what would be considered a “completely connected network.” According to Monge, Heiss, and Margolin (2008), in a completely connected network there are links between all of the pairs of the network’s nodes. Thus, a completely connected network is a symmetrically structured network in which all of the nodes are connected to one another (see **Figure 3.6** for an illustration of a completely connected network. In this example, for the purposes of having a clear visualization this network contains just 12 total nodes).

The basic infrastructure of the internet is such that, on the most fundamental technological level, it is indeed technically a completely connected network in which every computer user with an internet-capable computer is digitally connected to one another. As such, via the opportunity that the internet affords for communication across time and space, it is true that everyone who can access a computer device with an internet connection technically has the opportunity to engage with every other computer user connected to the internet. But this vision of such a network that approaches some ideal of a perfect symmetry in the qualitative and quantitative strength of all of the ties between all

of the nodes is only a hypothetical social network structure, not anything like the structure

*Figure 3.6 - Illustration of a completely connected network*



of the actual internet-mediated communication network. At its core, the notion of a completely connected network of internet-mediated communication is flawed because it conceives of connectedness only in technological terms, not in terms of the actual patterns of networked information and communication flow. After all, even before the internet was created, everyone with a mailing address also technically had one kind of tie connecting them together. But just as that kind of connectedness did provide a completely symmetrical social structure, neither does the internet provide any such notion of an



equalized social structure.

Similar to this idea in which the internet is conceived of as approaching a completely connected network is the paradigm proposed by Erdős and Rényi (1959) for the study of networks. Their hypothesis was that graph structure is inherently random. As Fortunado (2010) explains, the idea that Erdős and Rényi proposed was that within network structures, “the probability of having an edge between a pair of vertices is equal for all possible pairs” (p. 76). In such a network, no one entity is more likely than others to have greater network centrality or cohesiveness with others. The network structure of a random graph would also, thusly, have a high level of homogeneity. Like the completely connected network then, envisioning network structures as random graphs posits that network structures effectively equalize group structure. But as Barabási and Albert (1999) first suggested and subsequent scholars have affirmed, the use of advanced computerized data analysis for the study of various kinds of biological and social networks over time has helped us to recognize that network structures are not random at all. Rather, there are relatively consistent patterns that we can rely on observing within most any network, even within the seeming disorderliness of human social networks. To begin to unpack these patterns and to understand how concepts such as centrality and cliques and density and cohesiveness fit into our overall picture of this network structure, it is helpful to start to consider these ideas in the context of the popularly understood notion of “six degrees of separation.”

### 3.6 “SIX DEGREES OF SEPARATION”

A salient means of beginning to understand the idea that society and thusly the structure of public communication is organized as a social network structure comes from the concept of “six degrees of separation.” Generally, this is the idea that the “distance” between any two people in the world according to our interpersonal relations is surprisingly small. That is, we as a society are not as separated as our relatively small social circles may make it seem. Rather, according to this idea as it was originally suggested, there may be just six degrees (aka a geodesic distance of six) or less between any two people in the world. The playwright John Guare was the first to use this particular term in his popular play *Six Degrees of Separation*. But the idea that our communication technologies play a role in facilitating this structure was discussed as long ago as 1929 in an article called *Chain-Links* by the Hungarian writer Frigyes Karinthy. Karinthy (1929) suggested that Earth had shrunk over time “due to the quickening pulse of both physical and verbal communication” such that “anyone on Earth, at my or anyone's will, can now learn in just a few minutes what I think or do, and what I want or what I would like to do” (p. 1). Karinthy wrote of a friend's suggestion for an experiment that could demonstrate that “the population of the Earth is closer together now than they have ever been before” (p. 2). He explained:

We should select any person from the 1.5 billion inhabitants of the Earth - anyone, anywhere at all. He bet us that, using no more than five individuals, one of whom is a personal acquaintance, he could contact the selected individual using nothing except the network of personal acquaintances. For example, ‘Look, you know Mr. X.Y., please ask him to

contact his friend Mr. Q.Z., whom he knows, and so forth' (p.2).

The various scholars who contributed to the development of social network analysis implicitly recognized the idea that there might be six (or some relatively small number) of degrees of separation between any two randomly selected people according to their network ties. But Stanley Milgram (1967) is credited for conducting the first study which observed “empirically-created chains between persons chosen at a random from a major national population” (p. 67). Testing what he called the “small-world problem,” Milgram conducted a study in which he sought to find out—given several randomly selected individuals from two Midwestern US cities—how many acquaintance links separated these individuals from two people living in New England.

Specifically, Milgram asked the two samples of people from two different Midwestern United States cities, respectively, to try to reach two different randomly selected people from Massachusetts. He provided the starting persons in the Midwest the name, mailing addresses, and some basic (unspecified) information about each target person in Massachusetts and instructed the starting persons to send the contact information of the target person to some person who they thought would most likely know the target person. The rules stated that an acquaintance had to be known by their first name and communication between two acquaintances was only allowed to move in one direction. Through a series of experiments between several sets of people, Milgram found that *on average*, there were five hops between each of the randomly selected individuals. Notably, Milgram’s conclusions did ignore questions and implications concerning the fact

that there were many broken and incomplete chains among the participants in his study such that contact was never completed.

Just as in the study by Bavelas that I discussed above, Milgram found that within different groups or networks of people, there are differences in the number of “hops” (or total path distance) that separate any two individuals. Indeed, Milgram observed one case in his experiment in which two pairs of randomly selected individuals were separated by just 2 degrees of separation while in another case there were 12 degrees which separated the two people. By identifying these different “shortest paths” between any two randomly selected people in the US, Milgram had observed differential geodesic distances between two nodes within in a very large social graph among the US populace.

Interestingly, when Katz and Lazarsfeld (1955) wrote *Personal Influence*, they used some of the language and concepts of sociometry to discuss their idea of primary groups, opinion leaders, and interpersonal influence. As I wrote earlier, sociometry—the method and term created by social network analysis pioneer Jacob Moreno—was the term that was commonly used at that time for what is now social network analysis. Katz and Lazarsfeld recognized that the nature of sociometric structure given the notion of opinion leaders and primary groups was such that understanding these social structures was key to understanding information flow. But as Scott (2002) writes, the study of social networks “was abandoned for a time because the technology necessary for its pursuit was lacking” (218). Thus, it appears that Katz and Lazarsfeld recognized the potential importance of

social network analysis for the study of how media messages are created, distributed, and influence people. However, the limitations of communication technology within a pre-internet media system would have meant that the only sufficiently dense social networks of communication in that era were based upon face-to-face interactions. Thus, it would not have made much sense to study mass communication in that era through social network analysis concepts and methods.

A conception of the internet as an equalizer of communication and information access ultimately fails in that it conceives of the ties in the internet connected network strictly as technological linkages between computers. The reality is that the private and public communication environment that has developed on top of the technological infrastructure of the internet is neither a completely connected, symmetric network nor a random network made up of a homogenous population. Rather, when the ties in the internet-mediated public communication network are empirically observed as actual communication, we can see that the basic patterns and topological structure of communication within the overall network of internet-based public communication is highly asymmetric. That is, the strength of ties and the nature of communication is such that there is significant variation across the population in the number of incoming and outgoing connections to others. Or to put it another way, some actors in this actual internet-mediated public communication network are much more closely connected to others. Although he did not know it at the time, Milgram's small world experiment had

found evidence of this asymmetric network structure for society when he studied the connectedness of randomly selected people from around the United States in the 1960s. The internet then, it seems, effectively creates the technology to facilitate the organic development of an asymmetric public communication network without geographic boundaries. Beyond facilitating these connections, the internet also incidentally makes these interactions more readily observable than ever before for scientific research.

### **3.7 FROM MASS SOCIETY TO NETWORKED SOCIETY**

Van Dijk (2012) has suggested that the dominant relational structure of society over the last several years has shifted from a “mass society” to a “network society” model. In explaining this shift, van Dijk first describes the basic distinction between mass society and network society, first by providing the following basic definition of mass society:

A modern type of society with an infrastructure of groups, organizations and communities (called ‘masses’) that shape its prime mode of organization at every level (individual, group/organizational and societal). The basic units of this formation are all kinds of relatively large collectivities (masses) organizing individuals (p. 24).

He goes on to note several characteristics of mass society, including that the relational structure of mass society can be understood as homogenous, highly dense, high in centralization (very few central nodes), that face-to-face communication was the dominant form of interpersonal communication, and that broadcast media were the dominant form of media. Furthermore, he says, in mass society there were very few available outlets for publically mediated communication. Finally, he notes that a mass society is structured

hierarchically—that is to say that there are relatively discrete levels of power in a mass society and that the higher levels generally control the lower ones.

Conversely, van Dijk writes that in a network society, group collectivities are increasingly fragmenting as social structures are becoming more individualized and society is becoming more heterogeneous. While local communities remain important, people are also increasingly becoming part of larger, more diffuse types of networks as well—partly through the affordances of new communications technologies. Further, while face-to-face communication still occurs, communication in a network society is increasingly mediated by communication technologies. As such, media access becomes increasingly interactive in a networked society. And as society becomes structured as a network, then, the structure of society becomes more polycentric with many more potential outlets for access to news and information. Finally, van Dijk writes that a network society is not simply hierarchical but rather heterarchical, a term introduced by the sociologist Kyriakos Kontopolous (2006).

On the one hand, as van Dijk explains this concept of heterarchy, any system that is structured heterarchically still has inequality of power. But in a heterarchical structure, van Dijk writes that across the levels of traditional hierarchically ordered power a different dynamic exists compared to a hierarchical structure. That is, while the new gatekeeping process still has traditional properties associated with hierarchies then, van Dijk (2012) suggests this about the structural nature of the shift from mass society to network society:

Networks realize complex interactions within and between levels. In this way, they increase the flexibility of organization. In terms of determination, the heterarchical mode means that neither the higher nor the lower levels are in control. Instead, a very complicated picture appears of determination from below, determination from above and determination at the semi-autonomous level in focus itself (p. 32).

Importantly then, network structures do not do away with central, influential hubs. To illustrate further what this means, van Dijk (2012) suggests visualizing a spider web. Spider webs, he notes, are like networks in that they do not have a single center but rather, many centers. Van Dijk notes that computer networks are strong drivers of this process through which some traditional hierarchies remain while some new opportunities emerge for links to develop across traditional boundaries. Thus, in this sense, the internet and its associated technologies serve to facilitate the development of non-traditional heterarchical structure in the modern media environment.

Within the overall network of interactions that develop via the internet and its associated technologies, the distribution of and interaction about the news and information that circulates via these online networks constitutes a networked gatekeeping process. The network of actors in this process, actors with the shortest communication paths between themselves and the rest of the group, are generally those that have the greatest network centrality. As van Dijk notes, networks tend to be polycentric so there are often multiple people or organizations that have relative network centrality. The most highly connected networked actors within such a digitally connected network, then, can be seen as among the “network gatekeepers” within such a network.



### **3.7a GATEKEEPING AND PERSONAL INFLUENCE CONVERGE**

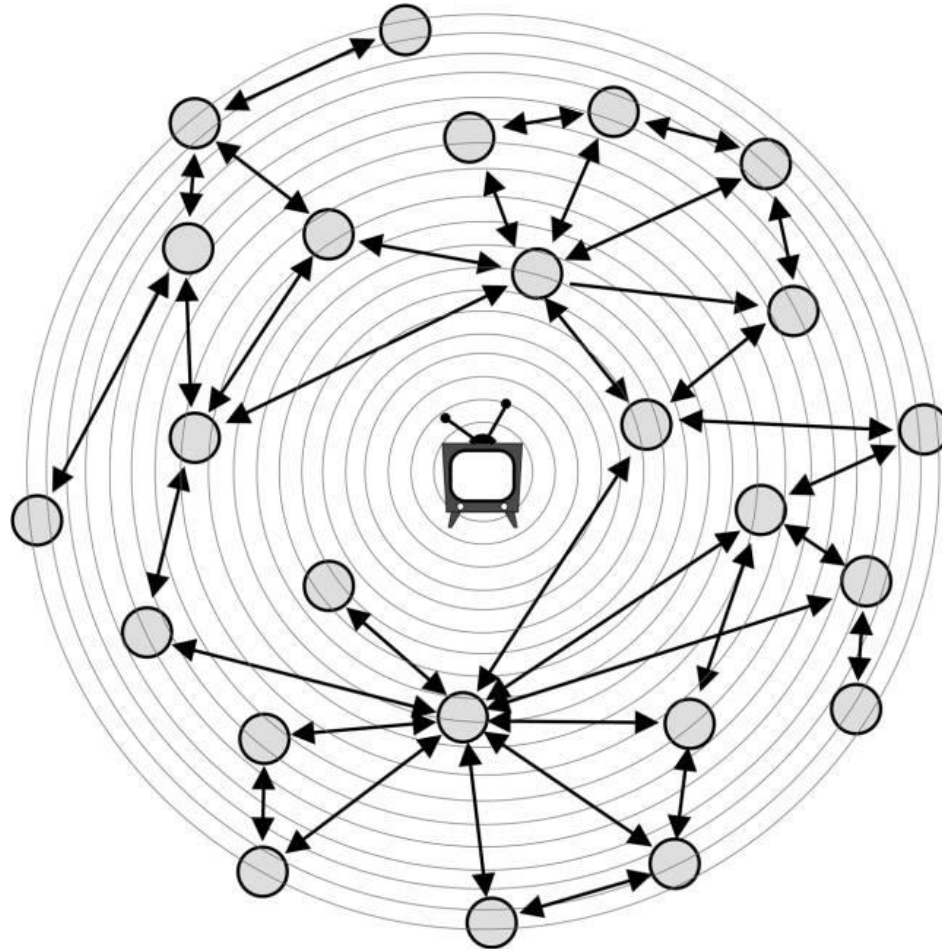
The model for communication in a network society is such that the traditional gatekeeping process and the personal influence process (Katz and Lazarsfeld, 1955) converge. Audiences in this networked model of communication are less atomized (Rosen, 2009) or, as Chaffee and Metzger (2001) put it, less molecularized. That is, as Chaffee and Metzger put it, “the idea of an atomized society has never really been correct (a more accurate descriptor, both then and now, is a “molecular society” where individuals are embedded in small interpersonal networks). Today then, in this new model of mediated communication, relational ties between the members of once mostly isolated primary groups—which might be called “clusters” or even “cliques” (Luce and Norman, 1949) in a networked media environment—become possible. Furthermore, as van Dijk (2012) notes, the media model in a network society is now more decentralized—although not completely uncentralized. That is, there are more central nodes (which in social network analysis parlance are sometimes called hubs) within a gatekeeping process that now operates within the structure of internet-mediated networks.

Thus, while opinion leaders may have been influential only among small primary groups in the past, in a networked model of communication it seems likely that the distinctions between gatekeepers and opinion leaders becomes blurred. After all, as Katz and Lazarsfeld (1955) noted, Lewin’s original notion of “gatekeepers” actually referred to the most influential people within small interpersonal groups. In this sense, then, they wrote, “Lewin’s ‘gatekeeper’ idea is very closely related to our idea of the ‘opinion leader’

(p. 118). Indeed, in today's networked media model, we can think of these changes as a process of convergence between mass media organizations (the traditional gatekeepers) and opinion leaders (the gatekeepers of primary groups), such that traditional mass media gatekeepers and some of the opinion leader types of the past now seemingly become part of the greater number of hubs in a decentralized gatekeeping process. **Figure 3.7** is a visualization suggested by Watts and Dodds for the communication model that underlies a networked gatekeeping process.

In a networked gatekeeping process then, the suggestion by Erdős and Rényi (1959) that the degree of individual entities within networks are randomly and thus, homogenously distributed has been discovered to be flawed. Instead, as Barabási and Albert (1999) note, over time and through the use of advanced computerized data analysis, the study of networks of all kinds including networks comprised of nodes that are proteins and genes, nerve cells, individuals and organizations, online hyperlinks, and human interactions mediated by the internet has helped us to recognize that the distribution of centrality among a given set of nodes is known to generally follow what is called a power law or scale-free distribution. In such a distribution, there are few actors that have relatively high centrality but who generally have low overall cohesiveness to the rest of the network. Meanwhile, many network actors—usually members of the general public—

*Figure 3.7 - Watts's and Dodds's (2007) Networked Communication Model*



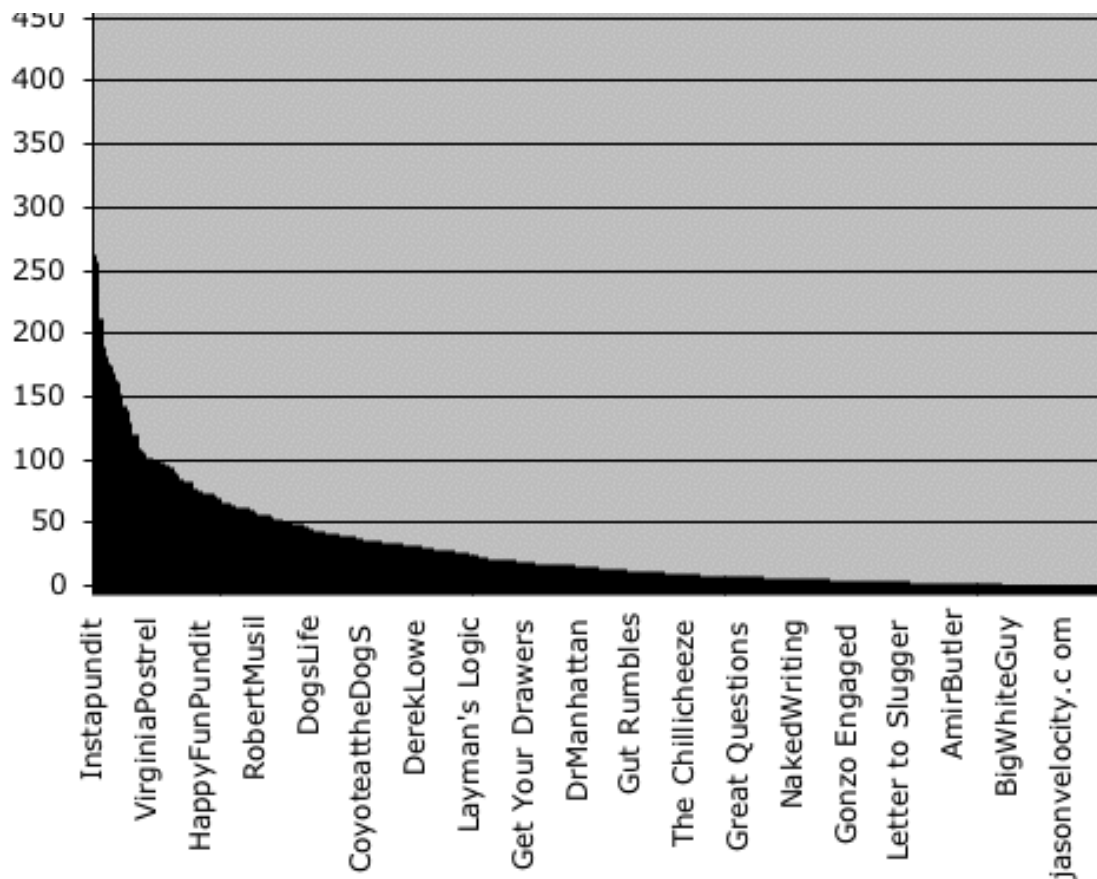
tend to have relatively low centrality but high cohesiveness to a small number of acquaintances. That is, the general public in such a conception of the overall structure of the networked gatekeeping process would be expected to form small cliques or highly cohesive clusters at the margins of a network.

Scholars such as Faloutsos, M., Faloutsos, P., & Faloutsos (1999), Adamic and Huberman (2000), Albert and Barabási (2002), Shirky (2003), and Watts (2004) have

observed and documented these patterns as occurring within the structure of internet-mediated communication. In general, they note that the natural human tendencies toward preferential-attachment to a small number of network nodes within the structure of social networks helps to explain the power law distribution of relative prominence in networks.

**Figure 3.8** is just one visual illustration of a power law distribution of links to political blogs that Shirky uses to illustrate this phenomenon.

*Figure 3.8 - Power law distribution of blogs by their inbound links from Shirky (2003)*



Source: Shirky, C. (2003). Power Laws, Weblogs, and Inequality. Retrieved Sept. 17, 2013 from

### **3.8 JOURNALISTIC NORMS AND ROUTINES IN TRANSITION**

Keith (2011) has suggested that the conditions for Shoemaker and Reese's "hierarchy of influences" on media content within the 20<sup>th</sup> century model for gatekeeping have changed with the development of the internet and its associated technologies. According to hierarchy of influences model, the subjective decision-making by individual journalism professionals has always been constrained by the standard routines developed and adopted by professionals within a transmission model of communication. Further constraints on decisions by journalism professionals from higher levels in the hierarchy of influences have also been understood as influences on the ultimate content of media messages.

But according to Keith, the media routines level of influences has lost some of its strength given that the old media routines that once existed have lost some of their relevance in the new media environment. In this new media environment, then, in which media routines have become less certain as media organizations try to understand how to operate, Keith writes that individual journalism professionals have gained greater individual agency to make decisions about how best adapt to the 21<sup>st</sup> century media environment. Epkins (2012) has conducted empirical research that essentially confirms Keith's suggestion that journalism professionals have become more empowered as individual decision makers at a time when media routines have become uncertain. In fact,

Epkins asserts that during this period of transition, it seems that the individual level of influences in the standard hierarchy of influences may have come to supersede all other levels of influence that have been traditionally understood to exist in the gatekeeping process. In other words, she suggests that at least some journalists in recent years have gained increased power to make subjective decisions in their gathering and reporting of the news.

According to Keith and Epkins, then, the routines of journalism within a networked, participatory process, are currently uncertain and in development. As such, Keith and Epkins suggest the possibility that a hierarchy of influences model as it has been previously conceived of may no longer be the appropriate model for understanding how the various micro, mezzo, and macro-level influences operate within a gatekeeping process that increasingly occurs according to the structure of social network relations. Following from this argument, then, it is necessary to consider the changing gatekeeping process from the perspective of how the work of journalists is evolving within this changing media environment. Within the developing networked gatekeeping process, the renegotiation of routines and norms that is currently happening perhaps most fundamentally as journalists seek to develop norms that suit what it means to be a journalist within participatory systems of journalism. Social network sites like Twitter are at the nexus of these ongoing changes for journalism.

The idea that media routines and norms are shifting is related to the idea of

heterarchy. We might say that the traditional hierarchy of constraining influences on the production of media content are now heterarchically arranged. In the new model, the old media gatekeepers are now amongst a central network of network gatekeepers within a more decentralized gatekeeping process. And just as we cannot view the public as a “mass society,” media workers can also no longer be viewed as a homogenous mass. Rather, journalists are heterogeneous network actors with unique roles and degrees of influence in the diffusion of news. Collectively, journalists, the public, and other actors in the public sphere are engaged in a networked gatekeeping process.

### **3.9 CHAPTER CONCLUSION**

A retrospective look at gatekeeping theory which places Lewin’s work in the context of social network structure and social network analysis has brought light to how the gatekeeper concept fits into our study of the modern news construction and diffusion processes. David Manning White’s application of the concept and subsequent gatekeeping studies throughout the 20<sup>th</sup> century were basically suitable for the media environment of that era. As Shoemaker and Vos (2009) note, gatekeeping theory was slow to develop into a true theory in large part because White and later scholars did not incorporate Lewin’s full conceptual framework for understanding gatekeeping as comprised of multivariate factors that produced the content of media messages.

Lewin’s primary interest in applying mathematical principles for the study of small group dynamics helps to reveal why White’s conceptual framework was arguably

somewhat forced for this purpose. Furthermore, the model developed by Shoemaker and others loses some of its applicability through the development of new technologies that serve to affect a restructuring of the news production and diffusion processes. Today, one is left to wonder if Lewin himself would have endorsed the way that his gatekeeper concept was applied to the study of news for the last half of the 20<sup>th</sup> century. This chapter has suggested that Lewin's work points to the need to conceptualize gatekeeping theory and empirically study the gatekeeping process as a process that now occurs according to the structural conditions of social networks.



## **CHAPTER 4. THE PROBLEM WITH SOCIAL RESPONSIBILITY**

### **4.1 THE INTERNET'S IMPACT ON JOURNALISM AND DEMOCRACY**

Prior to the digital revolution and the advanced development of the internet, the primary portals of access into “the media of the public sphere” (Habermas, 1989) were the relatively scarce number of television and radio stations, magazines, and newspapers that reported the daily news. Thus, the public was almost exclusively dependent upon these mediums in that era as the sources of information about current public affairs. Indeed, throughout the 20th century, only a small number of large companies had the requisite resources for producing and widely disseminating mass mediated messages via these print and broadcast media platforms. Most American cities had only one newspaper and a few television or radio news stations. Within scholarly circles but also within the popular lexicon, these professional journalism organizations and their newsmen have long been understood as the “gatekeepers” (Shoemaker and Vos, 2009) of the news. This concept became a popular and relatively apt metaphor for describing the significant extent to which the public depended upon these mass media organizations for access to the news.

In recent years, however, internet traffic data shows that social network sites on the internet have diffused into wide public usage, increasingly becoming the public's favored portals of access into the daily online news and information ecology (Pew Internet & American Life Project, 2013). Indeed, these social network sites such as Facebook,

Twitter, and Google Plus can integrate into a single online interface an electronically interconnected social network of traditional and emergent media outlets and communication tools for direct and indirect interaction with acquaintances and public figures. According to the Pew Research Center, younger generations of internet users—the “digital natives” (Palfrey and Gasser, 2008)—especially favor internet-based social network sites as their primary mediums for daily media access (see also Lee and Carpini, 2010). These trends showing extremely high rates of adoption of internet-based news sources among young people indicate that these social network sites are increasingly the public’s preferred means of access to daily news and information about the world around them.

Van Dijk (2012) has suggested that the development of the internet as a communication medium has facilitated a significant shift away from a “mass society” towards a “network society.” Benkler similarly characterizes the social impact of the internet as representing a shift from a “mass media dominated public sphere” towards a “networked public sphere.” Further, he characterizes the disruption and transformation of the previous economic model for the media as an important structural shift from a “mass media dominated” “industrial information economy” towards a new “networked information economy” (Benkler, 2006). For Benkler (2011), this shift toward a networked public sphere creates the potential conditions for the media system’s democratic purpose to be better equipped to serve the interests of a diverse public. While scholars such as Jones (2009) and Baker (2009) have lamented the decline of revenues for traditional media platforms—

especially newspapers—and offered ideas for “saving” the traditional press, Benkler advises that instead of worrying about what is being lost we should “give the networked public sphere time to develop.”

But some notable scholars including Habermas (2006), Baker (2009), Jones (2009), and McChesney and Nichols (2010) have questioned the potential of a media system that is being transformed through the affordances of the internet and its associated technologies to adequately support the needs that the public has from the media system for a healthy democracy. A common area of concern among these and many other scholars is that while the internet has evolved, declining revenues for newspapers means a decline in the kind of “accountability journalism” that Jones (2009) argues is at the “iron core” of democracy. These revenue declines for newspaper journalism have occurred primarily because advertisers and members of the public have determined that internet-based platforms such as Google or Craigslist provide more cost-effective mediums for their advertisements. This shift, then, has significantly diminished the demand that newspapers once had as advertising mediums, a demand that had been the primary source of revenue for newspaper journalism (Jones, 2009; Anderson, Bell, and Shirky, 2012). Meanwhile, the evolving media environment and the journalism produced for it are moving in a “post-industrial” (Anderson, Bell, and Shirky, 2012) or “post-bureaucratic” (Bimber, 2003) direction that is filled with “information overload” and uncertainty.

Scholars concerned with the economic problems in the newspaper industry today generally operate from a perspective that Christians and Glasser (2009) call a normative theoretical approach to media, an approach that makes ethically informed theoretical assumptions about the role the media should play in democracy. As Sullivan (2006) notes, normative views of the role journalism ought to have in society generally reflect a perspective first suggested by the Hutchins Commission in 1947 and later articulated further by Peterson in the classic *Four Theories of the Press* known (Schramm, Siebert, & Peterson (1956) as the “social responsibility” model of the press. As Sullivan explains this perspective in the context of newspapers, one of the fundamental ideas behind this model is that “the more powerful and successful newspaper companies become, the greater ‘responsibility’ and obligation they have to serve the community” (p. 67).

This social responsibility view of the press also lines up with what Herbert Gans (2003) calls the “journalistic theory” of democracy that he describes in three parts:

- 1) The journalist’s democratic role is to inform citizens
- 2) The more informed these citizens are, the more likely they are to participate politically
- 3) The more they participate, the more democratic the country is apt to be (p. 6).

These views reflect a belief in the central democratic purpose of what Jones (2009) calls “accountability journalism”—the serious investigative journalism that has been predominantly done throughout our history by newspaper journalists and supported by once wealthy newspaper companies.

Christians and Glasser. (2009) define normative theories of the press such as social responsibility theory in contrast to the types of theories that prescribe the factual role of the media in society. Factual-oriented theories—also known as descriptive theories—are those such as gatekeeping theory that approach the study of the press empirically, seeking to describe the press and its place in society as it actually is. In comparison, they write, normative theory “attempts to explain why a certain organization of public discourse leads to better collective decisions and eventually to an improved quality of life” (p. ix). Normative theory has the potential to be helpful, according to Christians and Glasser, in that it “may serve not only as a defense of political philosophies but it can also be made to sensitize media policymakers and professionals to acknowledge their own unstated premises—by exposing discrepancies between philosophical rationales and actual operations” (p. ix).

Such normative theory, they suggest, may be especially important to consider during periods of significant transition such as the present time of uncertainty about what the short and long term impact of new media technologies might be on the media system as a whole. They write:

Today, both journalism and democracy are challenged by great changes, ranging from information technology to the global economy. All of this is an invitation to examine critically the media’s place and task in society—in particular in societies where democracy is understood not only as a political system but as a culture. At issue is not only what *is* the role of journalism in society but above all what this role *should be*. Such a perspective of the media’s mission in democracy leads us to a normative level—beyond factual landscapes toward values and objectives” (p. vii, italics in original).

Perspectives that operate from a normative theoretical perspective about the media’s role

in democracy are arguably important, at the very least then, as part of an idealistic code for journalists, their employers, policymakers, and indeed any citizen looking to understand the traditionally understood public interest role of the media in a democracy.

## **4.2 THE PUBLIC SPHERE**

One much discussed theory for understanding the media's role in democracy that at least began as a normative theory is *the theory of communicative action* proposed by sociologist Jürgen Habermas, sometimes also referred to as public sphere theory.

Habermas first presented his theory of communicative action with his 1962 book *The Structural Transformation of the Public Sphere*. As Kellner (2000) describes the impact of this piece of scholarship, “few books of the second half of the twentieth century have been so seriously discussed in so many different fields and continue, almost forty years after its initial publication in 1962, to generate such productive controversy and insight” (p. 59). Indeed, Habermas's theory of communicative action is perhaps especially important for discussions of media because it offers a framework and set of concepts that are familiar across many academic disciplines for the discussion of the role of communication and mass media in a civil society. This cross-disciplinary familiarity of Habermas's notion of the public sphere, then, makes public sphere theory perhaps especially important to engage with given that the modern study of journalism mediated communication in the context of democracy generates considerable cross-disciplinary interest across many areas of the social sciences.

As Fraser (1990) describes the theory of communicative action, Habermas's conception of the public sphere "designates a theater in modern societies in which political participation is enacted through the medium of talk" (p. 57). In Habermas's (1991) own words, the bourgeoisie public sphere is "a domain of our social life in which such a thing as public opinion can be formed," adding the important qualifier that "access to the public sphere is open to all citizens" (p. 391). Continuing, he wrote that the public sphere is embodied in "every conversation in which private individuals assemble to form a public body" (Habermas, Lennox, & Lennox, 1964/1974, p. 49) and that further:

Citizens behave as a public body when they confer in an unrestricted fashion—that is, with the guarantee of freedom of assembly and association and the freedom to express and public their opinions—about matters of general interest. In a large public body this kind of communication requires specific means for transmitting information and influencing those who receive it (p. 49).

Finally, he wrote that within the scale of modern society in the 1960s, this ideal kind of public deliberation necessitated "certain means of dissemination and influence; today, newspapers and periodicals, radio and television are the media of the public sphere. (p. 398).

According to Habermas then, the public sphere is a realm within society that is necessary in a civil society for enabling the public as a whole to manage a balance between the objectives of the "private sphere" (the private sector in which commodity exchange and paid labor operate) and the functioning of the "Sphere of Public Authority" (the government). Benson (2009) notes the significance of this idea of a public sphere,

writing that “the emergence of a small-scale bourgeois ‘public sphere’ of coffeehouses, salons, and small political journals challenged the principle of traditional feudal rule and brought into being a new basis for authority: the consensus emerging from the public’s open-ended, critical argumentation and debate.” (p. 176). Indeed then, according to Kellner, the “structural transformation of the public sphere” that Habermas describes as occurring over the course of the 19<sup>th</sup> and 20<sup>th</sup> centuries was thusly a “transition from the liberal public sphere which originated in the Enlightenment and the American and French Revolution to a media-dominated public sphere” (p. 265).

Habermas went on to suggest that something approaching a normatively idyllic version of a democratic public sphere—something of a “Golden Age” for democracy—became realized in 18<sup>th</sup> century French salons and English coffee house in which members of the public would regularly gather to engage in rigorous deliberation about public affairs. Meanwhile, as Kellner (2000) notes, the various newspapers and as printed newspapers and political clubs that were born complemented the regular public discussions in this era in a way that facilitated the kind of public sphere to which Habermas believed we should strive. For Habermas, then, over time there was a move away from the kind of bourgeoisie public sphere that he suggests existed in the 18<sup>th</sup> century Europe in which he says citizen interests were optimally represented. The structural transformation that he saw in the 20<sup>th</sup> towards a mass media dominated public sphere, then, was a move away from that prior ideal, noting about the structure of the 20<sup>th</sup>



century public sphere that “the world fashioned by the mass media is a public sphere in appearance only” (p. 171). In his critique Habermas’s conclusions about the 20<sup>th</sup> century public sphere as follows, Kellner (2000) concluded:

For Habermas, the function of the media have thus been transformed from facilitating rational discourse and debate within the public sphere into shaping, constructing, and limiting public discourse to those themes validated and approved by media corporations. Hence, the interconnection between a sphere of public debate and individual participation has been fractured and transmuted into that of a realm of political information and spectacle, in which citizen-consumers ingest and absorb passively entertainment and information. ‘Citizens’ thus become spectators of media presentations and discourse which mold public opinion, reducing consumer/citizens to objects of news, information, and public affairs” (p. 265).

#### **4.3 SOME PROMINENT IDEAS FOR STRUCTURAL MEDIA REFORM**

Habermas’s conception of the mass media system in the 20<sup>th</sup> century as enabling a public sphere “in appearance only” reflects ideas that are similar to those expressed in the work of several prominent scholars including C. Wright Mills (1956), Ben Bagdikian (1983; 2004), Robert McChesney (2004) C. Edwin Baker (2007). All of these scholars have presented compelling evidence and criticisms of a media system in the United States comprised of companies owned by wealthy and powerful elites who influence the news creation process in such a way that privileges elite points of view. This media system, these scholars argue, has long presented a major barrier to the development of a public sphere that can equally represent the interests of a public comprised of diverse classes and needs.

In general, Bagdikian, McChesney, and Baker can be categorized as scholars who

have mostly sought reforms to the media system that could happen through policy or other changes on the outside of commercial media organizations. For one, Baker has suggested that regulatory interventions on the ownership structure of the media system could help in increasing structural ownership diversity in the media system (Baker, 2007). Sociologist Rodney Benson (2009) describes Baker's argument as follows:

States have a role and an obligation to intervene where markets fail—such as in providing an adequate amount of reporting on controversial or complex social problems, or news about the poor and the working class.” Such information and commentary, generally offensive or not of interest to advertisers and high-disposable income audiences, is nevertheless crucial to the functioning of a democracy (p. 19).

McChesney (2004) has advocated similarly for interventionist media reforms. Among his major arguments, for instance, has been to advocate the expansion of funding for the US public broadcasting system, an intervention that he suggests would have positive impact across the US media system. Baker (2009) has suggested greater government subsidies for newspapers or for giving newspapers a special nonprofit tax category status that would eliminate or reduce their tax obligations. Swenson and Schmidt (2009), two prominent investment officers, have concurred with Baker's point in arguing that tax policies could be changed to allow for endowments to subsidize journalism.

But as Obar (2009) notes, calls for regulation of media ownership and other kinds of artificial regulatory interventions during this era of increasing concentration have been largely gone ignored. US government policymakers and regulators over the past several decades have instead favored a laissez faire, deregulatory approach to developments in the

media ownership structure especially during a period of significant economic tumult during the ongoing development of the internet. Further, efforts to expand funding for public broadcasting and bills put forward to give newspapers non-profit tax status have not come to fruition. Resistance to reforms is likely the product of a kind of “path dependence” within a commercial media system in which government officials rarely respond to calls to intervene for normatively driven purposes (Starr, 2004; Peters, 1997). As Benson (2009) writes, in the “hyper-commercialized” US system of media, “once an institutional path has been chosen, for good or ill, it is difficult to get off of it” (p. 190).

Meanwhile, as Horwitz (2005) notes, scholars such as Compaine (2000) and Noam (2009) have made arguments that question the very basis of calls by scholars for further regulation of the media industry. That is, they offer mostly parallel arguments suggesting that the overall ownership structure of the media marketplace has become much more diversely distributed since the 1980s. Specifically, they write, if we consider the media industry to include the computer industry and other major information technology companies within the media marketplace, one can argue that the overall information economy was even more concentrated in the 1980s when IBM controlled most of the computer market, AT&T had a monopoly on the telephone industry, and a small number of media companies owned the media companies that produce content. Given that such technology companies as Facebook, Twitter, Google, and Comcast and even software and hardware companies like Microsoft or Apple have a major role in the

new media marketplace for some of the tools the public use for engagement in a networked public sphere, along with their role in hosting public data and making decisions about customer privacy issues, these companies have arguably become increasingly pertinent to overall questions about the economic structure of the media marketplace.

#### **4.4 MEDIA REFORM FROM THE INSIDE: THE CASE OF PUBLIC JOURNALISM**

Before the internet became a major structuring force in the media environment, Habermas (1991) suggested that a one possible means of revitalizing the public sphere could happen “through the very organizations that mediatize it” (p. 232). In other words, according to Habermas, the clearest way to create a more deliberative and egalitarian public sphere would be to advocate reform directly within the mass media system that operated the media of the public sphere. As it happens, there is a useful test case for this notion that effective normative reforms towards making the media system more inclusive of diverse public voices could happen from the inside of the media system through proactive efforts by journalists and media organizations. That is, guided in large part by the scholarly work of influential communication scholar James Carey, a group of communication scholars and media professionals in the United States in the latter part of the 20<sup>th</sup> century sought to create a new dynamic within journalism which would engender more regular public engagement among journalists and the public. The effort came to be known as the *public journalism movement*.

#### **4.5 WHAT IS/WAS THE PUBLIC JOURNALISM MOVEMENT?**

Although straightforward descriptions about what public journalism was are somewhat elusive, the newspaper editor and major public journalism advocate Davis Merritt (Merritt and McMasters, 1996) explained the public journalism movement when it was in its heyday, writing that “public journalism is an attitude; a state of mind in which we do journalism in a way calculated to reengage people in public life” (p. 173). Another of the movement’s most forceful advocates, media scholar Jay Rosen (1999), wrote that “public journalism tries to place the journalist within the political community as a responsible member with a full stake in public life” (p. 75). As Anderson (2011) describes the movement, “public journalism reformers argued that journalists should acknowledge themselves as democratic actors, should help to *create* a public, rather than just inform it, and that they should embrace a thick concept of democratic life centering on political deliberation, rather than simply on elections and polls” (p. 533-534). Another of the movement’s advocates, media scholar Edmund Lambeth (1998), provides a synopsis of public journalism that Voakes (2004) calls the “most explanatory (and ideologically neutral) definition” (p. 25) of the movement available. In Lambeth’s words, public journalism sought to:

1. Listen systematically to the stories and ideas of citizens even while protecting its freedom to choose what to cover
2. Examine alternative ways to frame stories on important community services
3. Choose frames that stand the best chance to stimulate citizen deliberation and build public understanding of issues

4. Take the initiative to report on major public problems in a way that advances public knowledge of possible solutions and the values served by alternative courses of action
5. Pay continuing and systematic attention to how well and how credibly it is communicating with the public (p. 17).

According to Anderson (2011), the public journalism movement began to take its shape in the wake of Watergate as media observers observed that the journalism they were seeing in the major news media was increasingly reliant upon a kind of stenographic, non-critical reporting which was seen as mostly regurgitating the views of political insiders. Further, Anderson writes that the people within the public journalism movement became troubled by what they saw as simple horse race coverage of political elections, coverage that ultimately failed to explain the actual views of candidates on issues. Over the course of its development then, the public journalism movement manifested itself in limited fashion at a few newspapers around the country, especially in the 1990s, when some media professionals at some of the major newspaper organizations like the *Charlotte Observer* and the *Wichita Eagle* took the initiative to lead deliberative public forums to attract more audience feedback and engagement in the process of determining what citizens wanted from the press.

But after its peak period of interest in the 1990s, the public journalism movement ultimately lost momentum as a formal effort. Why did public journalism ultimately not work as a concerted scholarly and applied movement? As I will argue, a further analysis of the movement's conceptual and operational objectives can be useful for understanding

its failures. But more than that, considerations of what the movement may have had right and wrong conceptually can be useful for contextualizing the ongoing changes for journalism today within the overall changing media environment.

#### **4.6 DECONSTRUCTING THE PUBLIC JOURNALISM MOVEMENT**

To begin to deconstruct the public journalism movement, it is important to understand the overall scholarly work of the movement's primary architect, James Carey. As Schudson (2008a) writes, Carey's general scholarly mission involved his efforts to develop a course for communication research as an alternative to the "administrative research"—the media effects research tradition established by Paul Lazarsfeld in the 1940s that became dominant in the United States during the 20<sup>th</sup> century. Carey had wanted to devise an approach to the study of communication that was different from the media effects tradition but which was also distinct from the approach that Lazarsfeld had labeled "critical" communication research. The approach that Carey developed, which he called a "ritual view of communication," was grounded in optimistic ideals that Carey saw in the Chicago School philosopher John Dewey's vision for the media's role in democracy. Namely, Carey sought to argue in favor of Dewey's notion that in order for the media system to better serve democracy, it would need to better facilitate the participation of the public as a whole in the civic conversation that leads to the formation of public opinion. For example, of the role of news within his ritual view of communication, Carey (1989) wrote:

News is not information but drama. It does not describe the world but portrays an arena of dramatic forces and action; it exists solely in historical time; and it invites our participation on the basis of our assuming, often vicariously, social roles within it (p. 21).

Further, as Rosen (199?) notes, Carey believed that journalism and democracy are actually “names for the same thing” (p. 191)—in other words, Rosen notes, Carey argued not just that journalism is important for democracy but that *journalism is democracy*. It was within this perspective of the news media’s central place in democracy with an essential need to engage the public directly that Carey conceived of the notion of public journalism.

The public journalism movement was significant enough that the leading scholar of journalism history and media sociology Michael Schudson (1999) called it “the best organized social movement inside journalism in the history of the American press” (Schudson, 1999, p. 118). Along the same lines, Peters (1999) wrote in his critique of the public journalism movement that “it is hard to argue against the idea of public journalism” (p. 99). The movement was, as Peters writes, aimed at promoting “more responsive and responsible public information” and to enable “vigorous debate and discussion among citizens” (p. 99). As such, the public journalism movement was clearly a well-intentioned effort aimed at enhancing the service of journalism to democracy.

So what was wrong, then, with the idea of public journalism? A useful way of understanding the problems behind the public journalism movement starts with a consideration of the way that Carey characterized the differing views about the media’s role in democracy as described by John Dewey and Walter Lippmann. As Carey portrayed



their different visions of the kind of press needed in a democratic society, Lippmann had represented the antithesis of Dewey. That is, according to Carey, Lippmann offered an elitist perspective which suggested that the citizenry is, in Carey's (1987) words, "inherently incompetent to direct public affairs" (p. 6). As such, in Carey's characterization of Lippmann's perspective, Lippmann believed that the media system would only get better when it was taken over by experts. Indeed, as Schudson (2008a) writes, Carey represented Lippmann's ideas for how the media system could improve "as the chief exhibit of what went wrong" (p. 1033) in the development of the media system of the 20th century

As both Schudson (2008a) and Jansen (2009) write further, several media observers including historians Thomas Bender (1987), and Christopher Lasch (1995), and journalist James Fallows (1996)—all supporters of the public journalism movement—seemingly latched on to Carey's portrayal of Lippmann as an elitist while lauding the Deweyan perspective of the press. Fallows, for instance, characterized Lippmann as believing the following:

The only hope for effective modern government lay in cultivating a group of well-trained experts, who would manage the country's journalism and its governmental affairs. The newspapers and magazines produced by these experts would lay out conclusions for the public to follow, but no one should expect the public to play more than a passive, spectator's role" (Fallows, 1996, p. 236).

As both Schudson and Jansen explain it then, a misrepresentative scholarly image of Walter Lippmann has developed over the past several decades within communication

studies, sociology, and other social science disciplines “as an arrogant critic who found democracy an inadequate system of government” who had advocated for “turning governance over to the experts” (Schudson, 2008a, p. 1031).

But such characterizations of Lippmann as an elitist who believed that the public is incompetent for engagement in democracy missed the pragmatic value of Lippmann’s vision of the press. While it is true, as Schudson (2008a) writes, that Lippmann placed too much focus on the need for experts, it is not true that Lippmann thought expert voices and the methods of scientists should replace journalists. Nor did he believe that journalists must become specialized experts. And as Schudson notes, Lippmann did not see the public as incompetent but rather, he questioned those whose lofty ideals about the central role of the public in regular democratic deliberation seemed to view the public as “omnicompetent.” Instead, as Schudson puts it, Lippmann believed that “a capacity for democratic self-government has nothing to do with native gray matter, but with the insufficiencies all of us share, a limited ability to attend to matters beyond our everyday experience” (p. 1033).

Peters (1999) agrees with the Lippmannesque perspective on this point, writing that public journalism failed to account for “the limitations of human energy” (p. 105). In other words, Peters noted that it can oftentimes be understandably impractical for the public to be engaged in the process of constructing the press as public journalism or any social responsibility model of the press envisions. Quite simply, as Peters writes, choosing

not to engage in public deliberation and the democratic process should be considered an important right of citizens in a democracy, not a deficiency of such citizens who are less engaged.

In similar terms, Schudson (2008b) notes that the nature of representative democracy is such that citizens in a democracy may not be able to or want to be engaged regularly in deliberation and that this must be their right in a free society. Indeed, as Schudson (1998) has argued, it is misguided to think that all citizens in a representative system of democracy need to fulfill an “informed citizen” model of citizenship based on the notion that in order for democracy to work, all citizens must be maximally engaged with and informed about public affairs. Bimber (2003) concurs with this perspective, writing of the flawed assumption behind the informed model of citizenship that “the informed citizen is the responsible citizen, and the responsible citizen is an informed one (p. 197). But as Schudson (2000) suggests, a more accurate and workable model of citizenship for modern society is one of “monitorial citizenship.” That is, in contrast to the informed citizen model, Schudson writes that the monitorial citizen

...should be informed enough and alert enough to identify danger to their personal good and danger to the public good. When such danger appears on the horizon, they should have the resources—in trusted relationships, in political parties and elected officials, in relationships to interest groups and other trustees of their concerns, in knowledge of and access to the courts as well as the electoral system, and in relevant information sources to jump into the political fray and make a lot of noise (p. 16).

Thus, a citizenry that is not omniscient but still monitorial may still be responsible in that they still monitor the media landscape and are sufficiently informed about issues of

interest to them.

Economist Anthony Downs (1957) and political scientists Robert Dahl (1989) concur with this argument that a well-functioning democratic public sphere does not require a model of citizenship in which all citizens are regularly engaged and highly informed about public affairs. As Downs wrote in his 1957 book *An Economic Theory of Democracy*, “any concept of democracy based on an electorate of equally well-informed citizens presupposed that men behave irrationally” (p. 221). But as Bimber puts it, the inevitability of democracy in practice is that “rational citizens choose to delegate some information acquisition tasks as long as information is not free; therefore, information will be asymmetrically distributed among perfectly rational citizens” (p. 241). And for Dahl, while only a subset of citizens will take advantage of the modern technological tools that have enhanced the opportunities for information access and engagement, these unique citizens can still serve as a check and balance for the citizenry as a whole within the public sphere.

According to Schudson, Lippmann thought that democracy could only work better for the public as a whole when an overall knowledge system outside of the press comprised of truly independent experts would develop to inform political leaders. Thus, contrary to how Carey and others have characterized his ideas, Lippmann did not believe that experts should take over the role of journalists or that journalists must become experts. Further, Schudson writes that Dewey (1925) actually agreed with Lippmann that

the public should have a limited role in democratic governance. That is, Dewey wrote the following about the limitations of the general public's role in democracy:

Executive action is not for the public. The intrinsic merits of a question are not for it. The intellectual anticipation of a problem, its analysis and solution, are not for the public. The specific technical, intricate criteria required in the handling of a question are not for the public" (p. 52-53).

Thus, while Dewey was more concerned than was Lippmann that experts are like any class of leaders who will be prone to privilege their own private interests, Dewey still ultimately believed in a need for experts and the public to communicate with one another. Indeed then, Schudson's argument in unpacking the Lippmann/Dewey distinction is ultimately that they both believed, for one, that journalism's ability to enhance democracy is limited. Further, they both essentially seemed to believe that for democracy to get better we must become better able to incorporate the knowledge of experts into our decision-making while at the same time enabling that the public voice to be represented in the public sphere. But why are experts so necessary? As Bimber (2003) writes, as the scope of government increases over time, then so too does the complexity of the political process increase as well. This increase in complexity in the policymaking process thusly increases the need for experts to inform political leaders about the policy decisions they make.

According to Schudson then, public journalism advocates failed to acknowledge an important component of Lippmann's perspective. That is, Schudson writes, journalism only improve if other institutions of intelligence arose outside of journalism to feed better data to the press" (Schudson, 1999, p. 124). For one, as Schudson (2006) explains

Lippman's vision of the need for experts:

The press provided news accurately only when journalists could depend on an efficient "machinery of record." ...News picks out from the wide world only what its imperfect "searchlight" reveals, and the searchlight is guided by market forces, political wishes, and cognitive blind spots, not by any kind of scientific aspiration to truth (p. 492).

According to Gans (2011) then, Lippmann's idea was that for the media and democracy in the United States to get better it would need the assistance of what he called "political observatories." Gans writes:

News organizations must be supported and complemented by other professions that gather and report data about society, ranging from the think tanks and other research organizations that Lippman called political observatories, to social scientists and scholars from other disciplines. These should work especially to provide data and other support to journalists responsible for analytic, process and other specialized news. They should also participate, together with pollsters and others, to develop the picture of society that appears in the symbolic arena. Actually, one could argue that researchers ought to have prime responsibility for making sense of society, leaving journalists the reporting tasks for which they have been trained (p. 11).

As Schudson (2010) adds, Lippmann's vision for these political observatories began to become partially realized beginning in the 1970s in the form of various governmental and private bodies such as the creation of Inspectors General in all federal cabinet-level offices and in the form of private, non-partisan think tanks that are increasingly engaged in enhanced data gathering efforts.

According to Schudson (2006), a major possible trouble with this development of experts getting greater control in the policymaking process is what he calls the "inevitable complicity of knowledge and power" (p. 493). Indeed, it was within a "broad cultural

revolt against authority” (Schudson, 2006, p. 493) in the US 1960s in which a large body of scholars from varied fields began to point with particular suspicion to this potential problem with experts. During this era, the idea of a “sociology of knowledge” developed which suggested that knowledge in society is socially constructed. Experts, critics believed, would bias their own personal interests in their efforts to inform the political process. This somewhat suspicious notion of expertly gathered knowledge is as inherently connected to the interests of reinforcing power among the powerful is helpful for understanding why some of the scholars behind the public journalism movement saw bringing the public into the journalistic process as the best means of media and democratic reform.

Bimber acknowledges that there is valid concern with such an arrangement that privileges the influence of experts in which democracy becomes “vulnerable to drift toward a state of Platonic guardianship, in which the judgment of citizens is severed from the decisions of elites” (p. 240). And political scientist and democratic theorist Robert Dahl (1989) agrees, too, that this kind of inequality in the people who inform democratic governance has the potential to favor elite interests in a problematic way. However, Dahl suggested that changes in communications technologies could eventually have the potential reduce inequality in the political process. Bimber agrees, arguing the potential for change given that the necessarily bureaucratic structure of media organizations in the 20<sup>th</sup> century has given way to nonbureaucratic structures among the various players in the

media environment.

#### **4.8 - A FIFTH ESTATE?**

Besides the needs for changes in the structure of public sphere outside of the industrial-controlled media system, Schudson (1999) suggests that one of the things that public journalism advocates had most wrong was their failure to recognize the problem in efforts to bring reform to the media and democracy directly through media organizations. Specifically, Schudson suggests that the public journalism movement was ultimately flawed in its very idea that the people and organizations that comprise the traditional press should spearhead democratic media reform. As he wrote in 1999 in a critique of the movement, the problem with the public journalism movement was that it did not “remove control over the news from journalists themselves.” Schudson continues:

In this regard, public journalism as a reform movement is conservative. It does not propose new media accountability systems.... Public journalism, in other words, stops short of offering a fourth model of journalism in democracy, one in which authority is vested not in the market, not in a party, and not in the journalist but in the public. Nothing in public journalism removes power from the journalists or the corporations they work for” (p. 122).

Here then, before new communication innovations facilitated by the affordances of the internet and its associated technologies had offered mechanisms to facilitate regular, direct engagement by the public with the news media, Schudson anticipated a future direction for how citizen-driven journalism and participatory engagement could best become integrated into the media system. Indeed, as Schudson explains it, what public journalism



had most wrong may have been that its proponents wanted journalists be involved in creating the conditions for the media to become more discursive and participatory by actively infusing those characteristics into the traditional press system themselves.

Schudson's suggestion that for public engagement to be truly driven by the public it must come from outside of the traditional press system mirrors a compelling argument by Usher (2011). That is, she criticizes the common trend in some journalism organizations in recent years of inviting citizen journalists to submit their work to news sites. She writes that "we want to cover the gaps in the news, and we want citizens to be involved in news creation, but we cannot assume that traditional journalists know best about how citizens ought to cover the news" (p. 266). As Usher continues, she suggests in terms reflecting Schudson's critique of public journalism that it is problematic to want traditional journalism organizations to be actively involved with defining what public input into the media should be. Instead, she writes:

Today, what counts as a public concern has the potential to be defined by citizens themselves. In a Web. 2.0 world, citizens no longer need to rely on traditional media organizations for the dissemination of content or have their work fulfill any quality or resolution demands. However, the reality is not that simple. The Web 2.0 world, in fact, has only accelerated the extent to which a commercial and professional impulse from news outlets permeates citizen content. News organizations can take advantage of the ease and speed that citizens have in sharing their content in a way that is timely and relevant" (p. 266).

Benkler (2011) echoes Usher, rejecting calls for government interventions into the media system and discouraging traditional news organizations from approaching citizen journalism as if the news organizations can control the way the public chooses to engage

in the media system. That is, Benkler argues in favor of “giving the networked public sphere time to develop.” The idea then, in short, is that through the development of what we might call a “Fifth Estate” that serves as a check and balance on the “Fourth Estate,” the media system as a whole can potentially improve.

From this review of the literature that has offered different arguments about the capacity of the media environment to better serve the needs of a democratic society, some major conclusions can be drawn:

- (1) First, numerous scholars have made arguments advocating for structural reform within the media system through government interventions such as tightening media ownership restrictions, increasing government funding for public broadcasting, providing government subsidies for journalism, or offering tax-exempt status for news organizations. But these arguments have generally fallen on deaf ears within a political system that has consistently taken a *laissez faire* approach to media regulation.
- (2) Secondly, one of the clearest flaws in these arguments comes through basic critiques of Habermas’s (1991) widely studied theory of communicative action. Habermas suggested that the modern media system must develop to fulfill what he considered an idyllic system of democratic deliberation that existed in 18<sup>th</sup> century social gathering spaces in France and England. But as Fraser (1990), Schudson (2000), and Kellner (2000) have noted, Habermas’s original development of public sphere theory

expressed a romantic vision of the public sphere of the past that does not match reality. The notion of an idyllic public sphere in that distant 18<sup>th</sup> century past was flawed, for instance, in that it was a very exclusionary public sphere which privileged the voices of wealthy white men while cutting out entirely the voices of women and minorities.

(3) Third, while these efforts to reform the media system through structural government initiatives or initiatives within professional media organizations are clearly well-intended, in many ways these arguments follow what Gans (1998) calls a journalistic theory of democracy which ascribes an exaggerated and unrealistic view of the role of journalism in democracy. This perspective is like the social responsibility model of media in that it puts journalism at the center of democracy, viewing the traditional system of media as indispensable if democracy is to work. According to scholars like Gans and Schudson, however, information is not as central to democracy as some have suggested. That is, as Schudson (2000) writes, “understanding the history of civic engagement in America is not a matter of positing a single standard of good citizenship and then documenting how well or how poorly Americans lived up to it in different eras” (p. 2). Rather, he writes, citizens in modern society tend to be “monitorial.” A significant part of understanding the changes in modern media and democracy involves understanding, as Lippmann (1922) suggested, that much change must happen within the political system outside of media, that the public media system can only get better when there are better mechanisms for scientific experts in all fields

to inform political leaders on public policy. In turn, to some extent journalism has the potential to better inform the public too if we develop better means of gathering information towards addressing modern problems.

- (4) And finally, efforts of the past to reform the media system from within such as the public journalism movement also are flawed in that they have sought to bring the public voice into the public sphere based on conditions that the public voice would ultimately be still controlled by industrial media organizations. As such, such arguments sought reform that would not truly offer a mechanism for independent public deliberation. This inherent problem with the public journalism movement helps to reveal why the internet inherently has greater potential than some form of public journalism ever could have had to enable more equitable representation of the public voice in democracy.

With all of this in mind, we can turn to the problem of understanding the way forward. Among the ongoing questions that cannot be easily answered today is whether the affordances of the internet and other advanced technologies can provide for conditions that make possible a media system that can develop to work better for democracy. The way forward begins with avoiding the temptation to look backward at what is lost and instead look at how a responsible kind of modern, changing journalism can adapt itself to the conditions of the new media environment.

## **CHAPTER 5. TOWARDS MORE RELEVANT JOURNALISM WITHIN A NETWORKED GATEKEEPING PROCESS**

### **5.1 THE WAY FORWARD**

As we consider the present and future of journalism, a good starting point comes in a reminder from Shirky (2009), who offers that “the old stuff gets broken faster than the new stuff is put in its place” (para. 16). Thusly, he implores those who have fretted the decline of newspapers to take notice that new forms of media and journalism can develop to work well within the modern media system. Indeed, there are still economic problems in the journalism industry—newspapers especially are still struggling. But many good things have happened as well. As Anderson, Bell, and Shirky (2012) write about the past decade in the media ecosystem:

Everybody suddenly got a lot more freedom. The newsmakers, the advertisers, the startups, and, especially, the people formerly known as the audience have all been given new freedom to communicate, narrowly and broadly, outside the old strictures of the broadcast and publishing models (p. 1)

As for the future of journalism, Anderson, et al. say that there has already been a degradation in the quality of journalism and that “we are convinced that journalism in this country will get worse before it gets better, in some places (principally midsize and small cities with no daily paper) it will get markedly worse” (p. 2). Still, they suggest that new possibilities exist for journalism to better serve its democratic role in the media system. In order to understand these possibilities, it is necessary to consider the evolving media

environment to which traditional journalism organizations are trying to adapt.

### **5.1a THE PRESSURES ON JOURNALISM AS A PROFESSION**

Before discussing the media environment today, it is important to note that traditional, sometimes romanticized impressions of the media system of the past may be colored by a Golden Age bias. Indeed, for one, one of the most pointed criticisms of a Habermasian conception of the 18<sup>th</sup> century public sphere is that it romanticized an era in which only rich white men were included in public sphere deliberation (see Fraser, 1990). As such, Habermas's suggestions that the media of the public sphere in the 20<sup>th</sup> century was comparatively worse were always questionable. Indeed, according to Kellner (2000) Habermas has backtracked on his romanticization of the 18<sup>th</sup> century public sphere in Europe, now calling his vision of a public sphere an "ideal type" in a Weberian sense—a description of the kind of public sphere that is understood to be necessary for an optimally functioning democracy but not necessarily a system that has actually ever existed with a healthy balance of interests and power within the various realms of the public sphere.

Similarly today, it is worth considering whether the journalism of the 20<sup>th</sup> century and the media system as a whole during that era was better than the much changed and developing media system of today. As Shirky (2008) writes, there were problems with the media system in the past in which a small number of highly profitable corporations essentially controlled the public's portals of access to news and information. The news busi-

ness in the 20<sup>th</sup> century was a highly profitable industry in the industrial information economy because first, traditional news outlets offered the public their most efficient place for finding out what was happening in the world. This value meant that these traditional news outlets were unparalleled in their audiences. Therefore, mass media organizations arguably possessed their greatest value in the industrial information economy not necessarily because they upheld some normative ideal but rather, because they offered by far the most efficient and cost-effective mechanisms then available to advertisers for reaching the mass public.

Indeed, Shirky argues that social authority that has long been ascribed to professional journalism organizations was not necessarily created, as perception might suggest, because their specialized knowledge made them solely capable of gathering and reporting the news. Rather, he suggests, much of their authority derived from the inherent power that came from having decision-making control within the organizations that once held virtual monopolies on wide public access to current events news. Addressing the particular construction of the journalism profession around that model built in part on the scarcity of media outlets, Shirky writes:

In any profession, particularly one that has existed long enough that no one can remember a time when it didn't exist, members have a tendency to equate provisional solutions to particular problems with deep truths about the world. (Shirky 2008, p. 59)

In terms similar to Shirky, Singer notes that journalists have long justified the privileged place of their work and of professional media organizations as “as key to a

democratic process that survives only through broad public access to reliable accounts of what is going on in the world,” (p. 63) reliable accounts which journalists once perceived that only they could provide. This perceived conception of journalists as ethical gatekeepers, Singer notes, reflects the journalistic view of democracy described by Gans (1998). Again, the journalistic view of democracy mirrors the social responsibility perspective in that it sees professional journalism as uniquely equipped to provide the only reliable accounts about the events in the world that can be considered valid information for public sphere deliberation. But as both Shirky and Singer explain this view of journalism, the media system of the 20<sup>th</sup> century was “provisional.” That is to say that it worked satisfactorily within the technological and economic conditions of that particular era for distributing and accessing news and information even as it fell short of some of the normative hopes that the diverse interests and needs of diverse publics could be sufficiently represented within the media of the public sphere. The diffusion of new communication technologies around the internet and a new economic structure that have resulted from the changes of these technologies have enabled the creation of a new, also provisional system of media for a kind of journalism that will be appropriate for these new conditions.

The journalistic view of democracy seems to see the media system of the 20<sup>th</sup> century through what sociology of professions scholars call a “trait approach” to understanding what kind of journalism profession is needed in society. That is, according



to Shirky (2008), this antiquated view of journalism's purpose was once based on the assumption that to do any kind of work in some area, in this case journalism, required being part of a profession. Indeed, doing professional work had been generally seen as inherently requiring formal training, requiring practitioners to follow certain standard ethical principles. In some cases this meant having officially recognized licenses, through affiliation with certain recognizable organizations, or through other various forms of legitimation. As Schudson and Anderson (2008) explain it, "key to the trait approach was an attempt to isolate certain professional characteristics and then to determine the degree to which various occupational categories fulfilled them" (p. 89). Notably, Schudson and Anderson write that the trait approach was characterized by normative tendencies for defining the purpose of professions. This approach paralleled to a journalistic view of democracy that tended to take for granted the inherent necessity of the particular kind of journalism that was developed and practiced within traditional media organizations throughout the 20<sup>th</sup> century.

Sociology scholars beginning with Hughes (1971) saw a different paradigm for the sociology of professions perspective which suggested that professions are not inherently worthy of institutional authority through certain formal traits. Rather, these traditional assumptions were to some degree based on a commonly overlooked and misunderstood notion that professions themselves are not inherently needed for the market or the public good. According to this perspective, professions and the tasks they are aimed at fulfilling

are formed over time through a culturally constructed process. Within this new understanding of how professionals develop then, it is understood that the demand from society dictates the work that is needed. In many cases, that work does not necessarily require professional authority. As Hughes put it, considerations of how professions develop have shifted away from a question of “is this occupation a profession” to the less presumptuous question of “what are the circumstances in which people in an occupation attempt to turn it into a profession and themselves into professional people” (p. 655). The way Schudson and Anderson frame the second question, this newer way of viewing a profession involves asking “over what social markers would we expect to see occupations struggle as they advance their “professional project?” (p. 95)

In the former “trait” approach to conceptualizing the development of a profession then, for instance, if you had the formal credentials and affiliation with a professional organization, then those traits gave you the professional status that thusly gave you official status as an official journalist. Comparatively, Abbott (1988) suggests that the latter approach can be thought of as a process of professionalization that is based on struggle. As it is conceptualized in this latter process, it is not that all of the formal, requisite traits for what it once meant to be a professional are gone. Rather, in his latter perspective, those traits can be viewed as common (but not mandatory) characteristics that people tend to pick up through the process of working within the jurisdiction of the journalism profession and becoming more skilled and knowledgeable about doing this kind of

specialized work.

The idea to be drawn from this literature, however is not to scrap the idea that journalism can be considered a profession or that journalists can be somewhat central actors within the modern media environment. Rather, the suggestion of this literature is that there are periods such as the present one in which, as the possibilities for who can engaged in journalism expands, journalism will occasionally be forced to go through transitions and professional struggle over questions of “what counts” as journalism. As a result, there becomes a need to acknowledge that the work of a journalism professional is not by definition the only means through which journalism as a valuable process can be conducted. As such, there must be refinements to what it means to be operating in the particular jurisdiction of journalism.

According to this sociology of professions perspective then, efforts toward understanding the role of journalism in the evolving media ecology are aided by this recognition of how and why professions have been known to develop and what professions are for. Further, perhaps the most central importance for understanding this process of professionalization is that occupational groups of different kinds are continuously engaged in what Gieryn (1983) calls “boundary work.” As Lewis (2012) explains it, engagement in boundary work involves efforts by people and organizations working within a particular occupational field to gain authority for their work relative to those doing similar kinds of work or those outside of their field. This boundary work,

driven by the pursuit of cultural and economic benefits for the people and organizations operating within a particular field of work, can be understood as their process of establishing their particular work as being part of an institutionalized profession. In specific terms, boundary work involves the pursuit of professional status through efforts to create “distinct and identifiable structures of knowledge, expertise, work, and labor markets, with distinct norms, practices, ideologies and organizational forms” (Leicht 2005, p. 604).

According to Lewis, professions in general are facing significant challenges at present from heightened economic threats that derive in large part from a growing do-it-yourself ethic among the public. Professions within fields such as law, academia, and even medicine are being significantly challenged through these forces as well. In those professions, however, there are at least stronger legal requirements for practice which inherently act as boundaries for the functions that they serve. In journalism, while there are some legal boundary mechanisms such as shield laws, the legally constructed boundary mechanisms are less rigid than for many other professions.

Within the journalism profession, then, the challenges for professional legitimacy are particularly strong today as professional journalists and their employers are being forced to adjust to a set of new technological and economic conditions that have disrupted a longstanding, lucrative, and thus highly entrenched model for professional journalism practice. In that previous model, journalism professionals and their organizations were

ultimately in control of the final decisions in the gatekeeping process for deciding what's news. The exclusivity they enjoyed in that model as providers of the widely accessible news afforded professional journalists and organizations significant control over the information that reached the public affairs agenda. This extraordinary advantage for the few people and groups who owned a news outlet within that industrial-controlled media system provided a powerful technological boundary that served to distinguish professional journalism in one important way from any kind of mediated information that did not appear in a mainstream publication.

It is through boundary work then, Lewis writes, that workers of any occupation strive to establish *institutional logics* that can provide justification of professions as indispensable institutions. He suggests that in the past, these traits made up the principles through which we tended to identify justification for why journalists and their organizations became the gatekeepers of news who operated as agents within the organizations that decided what should and should not be news. That is, simply put, one of the traditional "truths" of professional journalism has been that journalists are essential to this process of disseminating and sharing news. But Deuze (2005) notes that there is a problem with this presumption that journalism professionals *should* control the processes of gathering, reporting, and distributing of news that the public could access. And as Lewis (2012) writes, this notion that journalists should control the gatekeeping process is one of the fundamental flaws behind what he calls "professional logics," for journalism.

These professional logics for journalism are “the collectively shared and taken-for-granted assumptions underlying the belief that journalists, acting in their normative roles, ought to wield gatekeeping control over news content on behalf of society” (p. 845).

Looking back to the 20<sup>th</sup> century media model, given the technological and economic conditions that afforded media organizations control over information, in that era media organizations also had control over how journalism profession developed. As such, they determined the credentials that were necessary for being hired as one of their journalists, how these journalists would be trained, what the ethical principles would be that journalists would follow, and what a professional news report should and shouldn't contain. The trait-based approach was thusly at least somewhat more suitable for describing how the journalism profession developed in the past when these organizations could more fully dictate what could count as journalistic reporting. In this sense, and given that the control of information of those traditional news organizations has been eroded, so too has their authority on deciding what counts as journalism been eroded.

The development of new technologies and ways to use those technologies by people unaffiliated with traditional legacy media companies has allowed outsiders to engage in what some have called “parajournalism” (Schudson and Anderson, 2008). This is the case with some bloggers or for some citizens, for example, who occasionally engage in “random acts of journalism” (Lasica, 2003). Such random acts of journalism are small contributions by citizens to the overall picture of journalism that can get visibility through

new channels of networked communication and information access such as social network sites. Although it is undeniable that these are difficult times for journalism as a profession, the development of parajournalism and the loss of control by traditional media journalists need not be construed as threats to the integrity of journalism or to journalism professionals. Instead, journalism as a profession must continue to adapt to a news creation and dissemination process (a gatekeeping process) that involves professional journalists, non-professionals who are regularly engaged in journalism, and various other people and organizations contributing bits of information that make the news.

Thus, while the “institutional logic” of journalism as a profession was previously defined by “control over content” (Lewis, 2012), the sociology of professions literature suggests that journalism is currently undergoing a process of “struggle” to renegotiate the “boundaries” (Gieryn, 1983) of what constitutes journalism. As the boundaries expand, journalists and the organizations that employ them must better learn what it means to be not at the center of the gatekeeping process, with everyone passively waiting for your newspaper or broadcast report to arrive, but among a differentiated series of traditional and emergent influential voices in a networked gatekeeping process.

## **5.2 JOURNALISM IN A NETWORKED COMMUNICATION ENVIRONMENT**

According to the sociology of professions perspective, the expanded number of voices in networked gatekeeping process has significant implications for the journalism profession and the media system as a whole. For one, through the expansion of the

influential voices in a networked gatekeeping process, the journalism profession can be currently viewed as going through a period of significant struggle at the boundaries that define what counts as journalism. Because of these changes, it seems necessary to rethink the hierarchy of influences that Shoemaker and Reese (1991) identified as the multivariate influences within the gatekeeping process that influence the content of the media messages that reach the public.

But how has the gatekeeping process changed? Media scholars have offered various conceptions of the way that the internet has transformed the gatekeeping process. Williams and Carpini (2000), for instance, once suggested that there is no longer a significant gatekeeping process in the construction of news to speak of. They wrote that the way the internet has disrupted the traditional gatekeeping influence of traditional media organizations “undermine the idea that there are discrete gates through which political information passes: if there are no gates, there can be no gatekeepers” (p. 61). Importantly, this conception of gatekeeping characterized by Williams and Carpini focuses mostly on a metaphorical definition of gatekeeping which emphasizes the control aspect of the gatekeeping process.

### **5.3 THE MYTH OF DIGITAL DEMOCRACY?**

In a different argument that also invokes the gatekeeping concept in metaphorical terms, political scientist Matthew Hindman (2009) suggests in terms contrary to Williams and Carpini that a powerful form of control persists in the modern media environment.



On the one hand, Hindman acknowledges Williams's and Carpini's argument that media organizations and professionals have lost control over determining the content of the news. However, Hindman suggests that in the modern internet-based media environment, "search engines and portal Web sites are an important force" of influence over the messages that reach the public and that "a key part of their role is to aggregate thousands of individual gatekeeping decisions made by others" (p. 13). Thus, he concludes that a powerful form of control by elites persists in the modern gatekeeping process. Further, Hindman challenges arguments that have been popular amongst some that the internet has a democratizing influence on the media, suggesting instead that a gatekeeping influence exists today such that the internet "is shifting the bar of exclusivity from the *production* to the *filtering* of political information" (p. 13) [emphasis in original].

As Hindman sees it then, the collective filtering effects of the most widely used internet-based information portals such as the *Google* search engine or social network sites like Facebook and Twitter are such that a "winner take all" phenomenon occurs online. That is, specifically, Hindman finds that the distribution of audience traffic and attention today is very much concentrated to a relatively small number of sources. Hindman's method for measuring the diversity of the internet in this case is related to what Philip Napoli (2011) calls "exposure diversity" (although Hindman does not explicitly cite Napoli's exposure diversity concept).

Media policymakers dating back to the Communications Act of 1934 have long

identified diversity in the media as one of the core pillars—with media competition and localism—for assessing to what extent a media system is serving the public interest. And as Napoli notes, perhaps the clearest expression of this concern for diversity came in the U.S. Supreme Court case *Associated Press v. United States*, where the court declared: “The widest possible dissemination of information from diverse and antagonistic sources is essential for the welfare of the public.” Napoli goes on to identify several different kinds of media diversity that might be important to measure towards understanding whether or not the media system is sufficiently enabling a representation of diverse voices.

First, Napoli defines source diversity as “the extent to which the media system is populated by a diverse array of content providers” (p. 247). This form of diversity might include diversity of ownership of content or outlets, which may refer to the ethnic diversity of the people who own the media based on ethnicity or it may involve diversity based upon “various dimensions of organizational or economic structure (e.g. public, private, for-profit, non-profit, independent, group-owned)” (p. 247). Source diversity can also refer to diversity of the people who own or work for a particular organization. A second form of diversity that Napoli cites is content diversity, which can be thought of as the diversity of available types of programming, diversity in ideas conveyed in media content, or demographic diversity of the subjects depicted in media content. According to Napoli, source diversity and content diversity have traditionally been the most examined indicators of media diversity for policymakers and policy scholars.

As Napoli notes, in policy and scholarly circles it has often been suggested that source diversity can lead to content diversity. But according to Napoli, this correlation between these conceptions of diversity might be tenuous. As an alternative and better metric for measuring what is most important about diversity, Napoli points to the concept of “exposure diversity” in the media which he defines as “the extent to which audiences consume a diverse array of content” (p. 248). Napoli suggests that exposure diversity offers the most direct means of assessing true media diversity within an increasingly internet-mediated system of media. After all, metrics for measuring exposure diversity are the only metrics that directly account for how audiences actually consume media.

Hindman’s empirical evidence has effectively shown that audience attention on the internet is concentrated to a very small number of online sources. Thus, Hindman’s work effectively reveals the same or even greater inequality of exposure diversity in the modern media system compared to the past. He refers to this phenomenon as the emergence of “Googlearchy.” In disputing what he called “the myth of digital democracy” then, Hindman concluded that “it may be easy to speak in cyberspace, but it remains difficult to be heard” (p. 142).

More recently, in a report that Hindman wrote as a commissioned researcher for the *Federal Communications Commission’s* 2010 quadrennial review of media ownership rules, Hindman studied the distribution of internet traffic for local news websites within the top 100 largest US metropolitan areas. In this study, Hindman found that internet

traffic among internet-based websites for local news outlets is moderately to highly concentrated within the top 100 largest US communities. Here again then, he observed that this distribution of audience attention followed a power law distribution within each metropolitan area. More specifically, he found that a small number of news websites that have a local focus on the events within any given metropolitan area receive the vast majority of the public's attention while most news sites get a relatively small amount of audience attention. Ultimately, Hindman suggests that this tendency toward concentration of audience attention is antithetical to the kind of media system that can serve diverse publics and promote a more democratic system of media.

#### **5.4 POWER LAW DISTRIBUTIONS AS CHARACTERISTIC OF NETWORKS**

The extreme inequality in the distribution of audience exposure diversity that Hindman observes in his studies follows what scholars such as Barabási and Albert 1999; Shirky (2003), Adamic and Glance (2005), Benkler (2006), and van Dijk (2012) call a “power law” distribution. This phenomena is observable across the various types of internet websites including sites for magazines, newspapers, blogs, and television and radio news sites, with Hindman finding that there is actually more diversity of audience exposure for each of these types of media in their traditional forms compared to their online web forms. Or as Anderson (2006) characterizes this pattern, there are a small number of online sites that are at the head of a statistical distribution line that get most of the attention. Further then, most online websites are in the “long tail” of line.

Several scholars have acknowledged that the power law distribution of online audience traffic presents questions for how the internet impacts the media system's capacity to uphold the interests of democracy. Barabási (2002) has drawn similar conclusions from his findings of a power law distribution of overall Web traffic, writing that "the most intriguing result of our Web-mapping project was the complete absence of democracy, fairness, and egalitarian values on the Web. We learned that the topology of the Web prevents us from seeing anything but a mere handful of the billion documents out there (p. 56). Similarly, while noting that power law distributions naturally occur in networks described in physics and biology, Benkler writes that this power law effect represents "a serious theoretical and empirical challenge to the claim that Internet communications of the sorts we have seen here meaningfully decentralize democratic discourse" (p. 241).

Evidence of these power law distributions in internet traffic patterns raise important questions that are relevant to the discussion in this dissertation about the role of journalism and the overall media environment in democracy. On the one hand, Hindman's basic conclusion that the internet does not democratize the news is difficult to refute. On the other hand, there are no clear criteria for normatively declaring what the distribution of audience attention should be in a media system that optimally works in a democracy. Or, as Benkler puts it, we might also consider that it could be wrong to presume that such patterns of asymmetrically distributed internet traffic are necessarily

problematic for democracy. That is, according to Benkler, it could be that arguments that problematize power law distributions in internet traffic patterns begin with “the wrong baseline” (p. 247). So while it could be that the power law distribution is a basic, common feature of internet traffic, understanding the overall changes in the evolving media environment involves a broader consideration of other dimensions in the developed structure of internet-mediated public communication.

## **5.5 SOCIAL NETWORK SITES AND THE NETWORKED GATEKEEPING PROCESS**

Given that Hindman suggests a filtering effect that derives from the networked properties of the internet such that a somewhat undemocratic level of exposure diversity occurs, it is necessary to look closer at the structure of communication that occurs within the internet-mediated media outlets that are most widely used among the public. Among the most central fronts for the shift from a mass media dominated gatekeeping process are social network sites such as Twitter that effectively bring together into a shared space a variety of public sphere actors including journalists, politicians, non-traditional alternative media organizations and personalities, and the citizenry as a whole. Twitter, along with other social network sites like Facebook and network-based information aggregators like the Google search engine and Google News or Reddit, together influence and are influenced by common network phenomena

In Hindman’s (2011) study of online media use for local communities, he found that internet traffic patterns follow a power law distribution such that a small proportion of

local media get a highly disproportionate amount of audience attention. In the empirical portion of this paper, I conduct an empirical study of Twitter as a networked news platform for a moderately sized metropolitan area in the United States, the Twin Cities metropolitan area in Minnesota. In this study, I analyze various dimensions of the overall structure of networked interactions on Twitter that revolve around news that is relevant to current events news in the Twin Cities. Following from Hindman's observations about the power law distribution of audience exposure to local news media, we can suggest a first hypothesis for the present study that is relevant to understanding one characteristic part of the networked gatekeeping process as it can be observed on Twitter. That is, given observations by numerous scholars that power law distributions are an expected feature of internet traffic, we can propose the following hypothesis:

**Hypothesis 1A: The overall sharing of links to local news websites on Twitter will follow a power law distribution that is roughly similar to the one that Hindman found in his 2011 study.**

Directly related to Hypothesis 1A is the issue of just how concentrated is the distribution of overall audience exposure to local media sources in the Twin Cities? Thus, I suggest the following hypothesis which extends upon Hypothesis 1A:

**Hypothesis 1B: The Herfindahl-Hirschmann Index (HHI) for the distribution of URL mentions for local news organizations will be roughly comparable to the moderately concentrated HHI score that Hindman found in his 2011 study.**

## **5.6 JOURNALISM WITHIN A NETWORKED GATEKEEPING PROCESS**

Lasorsa, Lewis, and Holton (2012) note that a common tendency among some observers when new communication technologies develop is to see their potential for a “revitalization and expansion of democratic discourse” (p. 21). Specifically, they write, such arguments envision the flattening of extant hierarchies and the promotion from the media system of greater accountability and transparency in government. They point to Hindman as being among these scholars who have suggested that assessing the democratic potential of the modern media system should directly involve questions of whether such hierarchies have been dismantled. For Lasorsa, et al., however, such conditions for studying the ongoing changes in the media environment ultimately see only one dimension of a multi-dimensional process of change in a networked media environment.

As Lasorsa, et al. note, over the first decade of the internet’s widespread diffusion among journalists beginning in the middle of the 1990s, the internet became a space that was dominated by pre-existing elites inside and outside of media. These media elites generally continued to use the same operating practices on internet-based media that they’d used in the 20<sup>th</sup> century media environment, operating with a “we write, you read” (Deuze, 2003, p. 220) approach to media work that they had learned within the 20<sup>th</sup> century linear transmission media model. As an example of this, Singer (2005) noted that journalists who picked up blogging in the years after blogs became popular tended to use them the way they’d always used news columns. That is, when journalists began to use professional “j-blogs,” their tendency in the early years of the internet’s development



involved a tendency to avoid employing the interactive affordances of blogs that were an important characteristic of what made blogs a unique and unprecedented medium in a networked media environment. Singer called this tendency among journalists to carry over their old norms to the networked media environment a “normalization” of internet-based media. In short, journalists were operating as if they were in control of information as gatekeepers in the same way that they had been in a 20<sup>th</sup> gatekeeping model.

Here, it is useful again to consider the suggestion by Schudson and Anderson (2008) that our understanding of the journalism profession today must consider the question of “over what social markers would we expect to see occupations struggle as they advance their “professional project”?” (p. 95). As Deuze (2005), Singer (2008), and Lewis (2012) have similarly argued, the journalism profession has long tied itself to a set of fundamental ethical norms such as objectivity, truth-telling, and autonomy that were developed within an era in which they had significant control of information while audiences had essentially zero control over the news and information they could easily and efficiently access. According to Singer (2008) and Lewis (2012), it was within the now no longer existing conditions for doing journalism within the 20<sup>th</sup> century one-way media model that the standard ethical norms developed. Within that model, journalists came to see themselves as “ethical gatekeepers” just as many scholars had come to see the role of journalists in this way through a social responsibility model of the press (Schramm, Siebert, & Peterson, 1956) or journalistic theory of democracy (Gans, 1998). Journalists

as ethical gatekeepers within that model, Singer argues, were seen as the controllers of a sort of conveyor belt of news such that the ethical gatekeepers monitored and sorted out the true information from the misinformation. To state this another way, the idea of journalists as gatekeepers took on not only a descriptive meaning alluding to journalists as in control of access but also a normative meaning in which journalists came to understand their role in society as the public's protectors. Within such a conception of the role of professional journalists, Singer writes that "journalists see themselves as key to a democratic process that survives only through broad public access to reliable accounts of what is going on in the world" (p. 63). Without journalists, according to this view, "democracy comes apart" (p. 63).

Singer writes that this conception of the place of journalists in society was reasonable within the confines of that system but that it no longer can apply today. Singer does not suggest, however, that journalists dispose of their ethical norms altogether. That is, like Deuze, she suggests reconceptualizing a new set of norms, writing that "both scholars and journalists need to think about those concepts a little differently as the journalist's position relative to others in society changes (p. 62). According to Singer then, journalists need to consider what these norms now mean within a new networked model of media in which information "flows not only through the journalists but also, continuously, around them" (p. 64). As Singer explains it, "one could argue that the role of gatekeeper remains viable but in a different form, one that has more to do with sense-

making—with helping people understand, interpret, and use information rather than merely giving them access to it” (p. 65). In short, journalists have to come understand that their ethical norms must be carried out differently when they are participants within a network over which they have no control.

As Singer explains then, this means that for instance, instead of seeing themselves as the only possible sources of truth and fairness, a journalist must build trust with audiences in order to earn the audience’s belief that a particular journalist is a reliable source of truth within an otherwise complex web of information. After all, as Singer writes, “truth-telling is fundamental to trust, and trust is the basis for all social relationships.” (p. 65). Earning this trust, Singer argues further, continues to be related to needs for journalists to be authentic and accountable to standards of accuracy. But instead of authenticity deriving only from affiliation with a professional media organization and the branded identity of its traditional mass medium as it did in the past, Singer suggests that authenticity now “becomes less institutional and more individual” (p. 67). That is, journalists must earn authenticity through an ongoing, consistent relationships they develop as individuals with the public.

While accountability has in the past been based on the need for the public to trust journalists because there were no better choices, the expanded number of possible sources of information means that accountability is now more than ever about individual journalists being transparent. This means, Singer writes, that journalism is becoming

more of a conversation in which, for example, journalists can gain greater accountability “through provision of greater evidentiary support for what they write, including the use of network capabilities such as hyperlinks” (p. 68-9).

Singer writes that the traditional notions of journalistic autonomy that developed within the closed linear model of the 20<sup>th</sup> century must now be reworked as well. Journalists in the past have envisioned themselves a “Fourth Estate” in the classic notion of the term in which journalists have been imagined as separate from any ideological influences and thus, “able to report impartial truth” (p. 70). But as Singer writes, it has become clearer in recent years that past claims of the “ethical gatekeeper” role of journalists have often been romanticized. That is, the idea that journalists are a “Fourth Estate” with autonomy from pressures by elites were spurious all along. Indeed, the very idea of autonomy suggests a level of isolation from public life that is untenable within a media environment that is no longer a one-way lecture but rather more of a conversation (Levine, Locke, Searls, and Weinberger, 1995). As such, Singer writes:

...autonomy is increasingly difficult if not impossible to maintain within a network, which is inherently about relationships and connections. Seeking to remain apart from such relationships may render journalists less admirably independent than dangerously isolated and even irrelevant, a concern that leads to consideration of the perpetually controversial topic of objectivity (p. 72).

Finally, then, Singer argues that the traditional objectivity norm in journalism must also be reconsidered, writing that “being even-handed in providing information is a plus, but ‘he-said-she-said’ reporting is a disservice to the public” (p. 72). Singer’s criticism

here reflects a concern perhaps best described by journalist Brian Stelter (see Rosen, 2010), who has suggested a particular problem with the expression of journalistic objectivity that manifests as what the philosopher Thomas Nagel (1989) has called “the view from nowhere.” That is, according to Stelter, when all journalists seek to report public affairs news with the kind of political impartiality that is commonly understood to embody objectivity, the result is a “view from nowhere,” a perspective that promotes fairness to different sides of the story over faithfulness to what might be a more important truth based on empirical evidence (see Rosen, 2010). As Singer writes, when criticisms have arisen that journalistic reporting has been unfair, “objectivity served as a bulwark against these challenges: It was a way to arrive at truth, neither sidetracked by literary pretensions nor deterred by esoteric debates about whether reality was knowable. It happened. We reported it ‘objectively’. It’s true” (p. 72).

Journalists today then, she writes, should not dispose of the objectivity norm altogether; indeed, there is still value in journalists bearing faithful witness to the facts about the events and issues they are reporting about. As Singer explains how objectivity should be rethought:

The term does not mean detachment. It does not mean erecting walls around the journalistic product, process, or person. It does not mean a determination to be unmoved by an event or its effects. It cannot mean those things if journalism is to retain any relevance in a world in which we are all so thoroughly intertwined. Instead, objectivity in a networked environment should mean a recommitment to the professed rationale behind establishing it as a norm in the first place” (p. 73).

As such, she argues that being relevant in the networked media environment in the context

of the objectivity norm asks for journalists to be truthful and objective to start with but empowered to draw informed conclusions, even if this means breaking from traditional journalistic norms of objectivity. For Singer then, “the role of gatekeeper remains viable but in a different form, one that has more to do with sense-making—with helping people understand, interpret, and use information, rather than merely giving them access to it” (p. 63). Perhaps we might say that such an approach means that journalists should strive for objectivity in their approach to reporting the news but not necessarily in the outcome of their reporting.

As Singer explains the ongoing changes in the gatekeeping process then, the structural transformation of the gatekeeping process through the development of a new technological infrastructure for the media system necessitates new manifestations of these journalistic norms, norms that should be driven by logics of openness and participation. As the traditionally understood “gatekeeping process” that involved the gathering, writing, reporting, and disseminating of information” moves into the networked public sphere, gatekeeping theory becomes disassociated from the gatekeeping metaphor that suggests control of information. That is to say that gatekeeping today should mean something more along the lines of the meaning that the concept took on when Bavelas (1950) reconstituted Lewin’s gatekeeper concept in the context of a network into the notion of relative network centrality. Various somewhat central actors within the networked gatekeeping process today, among them journalists and large media organizations, do not really have the kind

of control over the public's access to information that they once had. But among a larger, more decentralized group of central network actors within the diffusion of news today, journalists and media organizations do have significant and specific influence in the role of what Sunstein (2011) calls "general interested intermediaries." This conception of news organizations and journalists is useful, first, in that it locates a vital democratic role of journalists as information brokers. Further, this conception of their role also provides a useful conceptual notion of what a journalist does in a networked media environment in which their former control over the current events news that can reach the public has been lost.

Bruns (2005; 2008) has asserted that the shift in the role of journalists in the media environment today should be understood within the context of citizen-driven journalism from the blogosphere are engaged in "gatewatching." According to Bruns,

Gatewatching describes the continuous, communal observation of the output gates of conventional news organizations, as well as of the primary sources of news and information, for information which is seen to be of interest to the gatewatcher's own community. Gatewatchers will then frame such information more or less elaborately, possibly also combining it with further, other reports from a variety of alternative sources as well as informative background information relating to the story (p. 74).

As Bruns explains it, gatewatching is different from traditional notions of gatekeeping in that it "does not concern itself with making a comprehensive news selection from all available information in the news flow; it does not claim to present 'all the news that's fit to print'" (p. 73) but rather, it is "a process of highlighting news, of publicizing rather than publishing information" (p. 74). This kind collaborative filtering

(Lewis, Kaufhold, and Lasorsa, 2010) of the news is connected to the “commons-based peer production” that Benkler (2006) described when he wrote that the networked media environment “makes possible a new modality of organizing production: radically decentralized, collaborative, and nonproprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands” (p. 60).

## **5.7 TWITTER**

Empirical observation and evaluation of the networked gatekeeping process that is developing in an increasingly internet-mediated public communication environment presents significant challenges. Perhaps the most significant challenge is the question of “what should you observe?” There are billions of people who actively use the internet across a constantly growing and changing set of traditional and emergent types of media sources. No online aggregator or social network site encompasses the whole of the networked gatekeeping process.

However, Twitter is particularly useful for observation of the evolving positions of journalists, the public, and other public sphere actors within a networked gatekeeping process. For one, within today’s emerging media environment, Twitter is among the central fronts for commons-based peer production and the ongoing negotiation of boundaries for what counts as journalism. Further, while observation of internet-mediated communication patterns across many websites would be challenging, Twitter is like many



other online web portals in that it has an Application Programming Interface (API) that makes for efficient collection of data and analysis. Many developers and researchers have created programming applications specifically for use in accessing the Twitter API specifically. Moreover, many of the data collection software tools that developers and researchers have created are openly available for use by researchers to continue data collection and analysis of Twitter and other internet-based databases.

#### **5.7a THE NUTS AND BOLTS OF TWITTER**

Twitter (<http://Twitter.com>) is a social network site where millions of people submit, read, and interact through a constant flow of short messages comprised of no greater than 140 characters each. Chen, Nairn, Nelson, Bernstein, and Chi (2010) call Twitter and other such social networking and information platforms “information streams” in that “(1) they deliver to each user a stream of text entries over time that are personalized to the user’s subscriptions, and (2) they allow users to explicitly interact with each other” (p. 1184). Started in 2006, the idea for Twitter grew out of a realization that the increasing popularity of Short Message Service (SMS) or text messaging via mobile phone devices could translate well to an online community setting (Sarno, 2009).

In September 2011, Twitter reported that the site had reached 100 unique monthly users. That is, 100 million unique users were logging into Twitter each month, with 60% of these active users posting tweets and the rest logging on at least once per month and reading their Twitter feeds but neither contributing nor retweeting content. In addition,

Twitter reported that half of these users, 50 million, were logging onto the site every day. The 100 million active user base, according to Twitter, represented an 82% increase over the previous past year (“One hundred million voices,” 2011). By October of 2013, Twitter reported in its Initial Public Offering filing with the US Securities and Exchange Commission that the site had grown to 218.3 million monthly active users with 100 million unique daily users sending 500 million tweets per day.

#### **5.7b TWITTER, JOURNALISM, AND THE FLOW OF NEWS AND INFORMATION**

The role and relative importance of social network sites like Twitter in the networked gatekeeping process and specifically, for the filtering of public affairs news from journalism organizations, is still far from certain. Indeed, there is evidence that seemingly points in different directions regarding the impact of Twitter on the flow of information and its role as a site for news access. For example, in a 2012 study the Pew Research Center’s Project for Excellence in Journalism reported that within Facebook and Twitter, the two largest US-based social network portals on the internet, only 9% of respondents reported accessing news recommendations “very often” from either site (see Mitchell, Rosenstiel, and Christian, 2012). This 9% figure does, however, mark a more than twofold increase in the use of these sites for news access compared to 2009. In addition, this same study also found that 52 percent of respondents get at least some news from some kinds of social network sites. And further, the percentage of people accessing social network sites for news is highest amongst people who own mobile phone devices or

tablets.

Indeed, as Twitter wrote in its 2013 Initial Public Offering filing, mobile devices are the primary driver of traffic on their service. Given these data and Twitter's limitation of 140 characters or less per tweet, there is clear evidence that the use of Twitter for access to news is on the rise. More than that, this evidence also suggests that Twitter is also equipped to function well into the future given its compatibility with the increasingly ubiquitous portable tablet and phone devices that people now so commonly use to consume and interact with media. In addition, in 2009, the internet traffic measurement company comScore reported that Twitter users were two to three times more likely than regular internet users to visit online news sites (Farhi, 2009). Furthermore, a recent study revealed that 59% of journalists worldwide use Twitter, that 51% of journalists said that they use social network sites to gather information for their reporting, and that almost 80% of US journalists have a Twitter handle (Oriella Digital Journalism Study, 2013).

Given that it was started just seven years ago and took some time after its inception to clearly emerge into one of the most popular social media portals on the internet, scholarly study of Twitter is still relatively new. However, a growing number of researchers are conducting studies specifically designed to understand certain aspects of influence on the flow of information as well as the role of journalists on Twitter. Among those who have conducted research about the flow of information and structural patterns of interaction on Twitter include Bakshy, et al. (2011), Kwak, et al. (2010), and Ghosh and

Lerman (2010). While the approach of these scholars was not explicitly rooted in direct connections to gatekeeping theory or the mass communication research discipline, this research is relevant to the general scholarly pursuit of better understanding the gatekeeping process on the internet-driven networked public sphere.

There are numerous potential methods that could be used to determine the influence of news organizations within the Twitter network, too numerous to list here. One commonly agreed upon conclusion among these and other researchers is that simple metrics such as the number of followers for a profile are limited as indicators of actual communication structure and information influence (Kwak, et al., 2010). Indeed, findings by Kwak, et al., showed that raw follower numbers on Twitter cannot reveal some of the important underlying patterns on communication structure among the various network actors in the networked public sphere. For instance, in Kwak, et al.'s work, there were several news organizations and public affairs oriented profiles that were not particularly highly ranked based on their number of followers but which were much more highly ranked when their influence was measured as a product of their capacity for influencing users via retweets within their follower graphs. Given such findings, it is clear that it is not enough merely to assess the influence of an organization or person within a social network site based solely on their follower numbers.

Numerous scholars with a focus on the intersection of social media and journalism have conducted research focused on the way that journalists are using Twitter (see Lewis,

Zamith, and Hermida, 2013; Bruns, 2012; Himmelboim, McCreery, and Smith, 2013).

Hermida (2010) suggests that Twitter operates as a new kind of interactive news service, likening it to what computer scientists call an “awareness system.” Within the computer science literature, awareness systems are internet-based media systems “intended to help people construct and maintain awareness of each other’s activities, context or status, even when the participants are not co-located” (Markopolous, et al. p. v). Hermida writes that “in an awareness system, value is defined less by each individual fragment of information that may be insignificant on its own or of limited validity, but rather by the combined effect of the communication” (p. 301)

Many media scholars, including Gillmor (2004) and Hermida (2010), have pointed to Pierre Lévy’s (1994) notion of “collective intelligence” to explain how the internet is changing our modern media system. According to Lévy (2013), collective intelligence involves a combination of two concepts: cognition and community. He writes that cognition is “the activity of perceiving, remembering, problem solving, learning, etc...” and that as such, collective intelligence refers to “the cognitive capacities of a society” (p. 99). For Hermida, “microblogging systems that enable millions of people to communicate instantly, share and discuss events are an expression of collective intelligence” (p. 298).

Within a developing awareness system such as Twitter in which a form of collective intelligence is become arguably more efficient than it has ever been before, Hermida (2010) suggests that a new kind of role for journalists involves what he calls

“ambient journalism.” Hermida defines ambient journalism as “an awareness system that offers diverse means to collect, communicate, share and display news and information, serving diverse purposes” (p. 301). Thus, he suggests, “if we consider Twitter as a form of ambient journalism, then the issue becomes the development of systems that can identify, contextualize and communicate news and information from a continuous stream of 140-character messages to meet there needs of an individual” (p. 302). For the empirical study conducted for this dissertation, my objective is to use social network analysis to better understand some characteristics of the networked gatekeeping process as it can be observed within the information flow and public communication that occurs on Twitter. In short, my objective is to understand the place of journalism within the Twittersphere.

### **5.7c HOW TWITTER REPRESENTS A SOCIAL NETWORK**

There are two basic types of social networks. One type is an undirected network. O’Malley and Marsden (2008) write that “an undirected network is symmetric by construction” (p. 232) in that any two actors in such a network are reciprocally connected. In other words, the connections in an undirected network are, by definition, two-way. This does not mean that the structure of an undirected network itself is asymmetrically arranged, however. In the context of social network sites, one can think of the original Facebook “friendship” network as essentially an undirected network—when Facebook started, two people had to agree to be “friends” and doing so would give users special access to see each other’s Facebook posts and other personal content.

A directed network consists of ties that may or may not be symmetric. The Twitter “follower” network on Twitter is and always has been inherently directed—I can follow you but you don’t have to follow me. Over time, Facebook has created functions that allow for it to technically be a directed network but its original structure as an undirected network seems to have defined the purpose it took on for many people, making it mostly a closed network with numerous somewhat private clusters of undirected follower networks. As a fundamentally directed network, on the other hand, Twitter is more open—excepting the rare Twitter users who keep their posts and profiles “private,” anyone can “follow” anyone on Twitter. And anyone, including a person who has not created a Twitter account, can read the posts of most Twitter users.

## **5.8 TWITTER DATA COLLECTION**

As Bruns (2012) notes, for its first few years of existence, the owners and operators of Twitter had very a very liberal policy for its Application Programming Interface (API) that computer developers and researchers could use to build web applications and collect data for research. This open policy made the Twitter API very efficient for skilled computer developers and researchers to collect most any kind of data they wanted to gather. But beginning in 2011, Twitter began making decisions to significantly limit the openness of its API. They set stricter “rate limits” on how fast a researcher could collect various types of data.

Twitter made these decisions primarily to protect their proprietary interests. For one, before Twitter made these decisions, a lot of independent developers made money off of applications that Twitter users used for customizable interfacing with Twitter. After establishing a significant user base, however, Twitter decided that they wanted to take greater proprietary control of the applications that facilitate user interfacing with Twitter. Twitter does allow paid access to any content a researcher could want through an online service called *Gnip*, but data requests through Gnip are very expensive.

Twitter, Inc.'s tightening of rate limit policies have created new challenges for researchers seeking to collect data from Twitter. Requests for follower data are especially restricted. In fact, in the original proposal for this study, my plan was to collect a network follower graph for all of the followers of all of the Twitter profiles affiliated with Twin Cities news organizations. Within current rate limit restrictions, however, I have since calculated that a request for a multi-ego follower network for the 900-plus local Twitter profiles affiliated with Twin Cities news organizations would require at least a year of uninterrupted, automated data collection of this one social network. Any disruption in this kind of data collection due to a temporary failure in the internet connection would potentially require me to start over from the beginning with the data collection.

Beyond these data collection issues, there would be several problems in any conclusions that might be drawn exclusively from the network of ties that are defined by the follower relations between Twitter users. For one, the follower counts for users are



likely to be skewed upward compared to the actual network of real, active Twitter users.

One reason for this involves the potential for fake or SPAM accounts on Twitter.

Additionally, many accounts on Twitter are not active at all and even the ones that are used by real people at least sometimes may not be regularly active. Further, even daily active users will never see many of the tweets posted by the Twitter profiles that they follow. Of course, the act of Twitter users deciding to follow certain users is generally an indicator that the followers are somehow interested in the users they choose to follow. But ultimately, follower ties are somewhat unreliable indicators of actual social relations because they do not reveal how many Twitter users in the network are actually interacting.

In addition to the social network that is created by the directed follower network on Twitter, connections created by actual communication between users can also represent the nodes and ties in a social network. And unlike the rates limits on requests for follower data, the rate limit allowances on requests for actual communication or “tweet” data between users are much more open. Ideally, one would be able to easily get as much data as possible, including both follower network data and communication network data. But the collection of follower data from the Twitter API is very inefficient. Further, follower data is limited in what it can reveal about the flow of information on Twitter. Moreover, the social network created by the actual communication network between users is arguably more emblematic of the social structure of Twitter anyway. In sum then, the observable social network patterns based on actual communication between users is the best and most

accessible indicator that Twitter offers for understanding the actual social structure of communication on the site.

## **5.9 EMPIRICAL RESEARCH OF TWITTER**

While most Twitter research has focused generally on various aspects of the flow of information within this social network, the approach taken in this study is aimed at studying the flow of information within a local news ecology—specifically, in the Twin Cities metropolitan area in Minnesota that roughly includes the cities of Minneapolis and St. Paul and their suburban areas. Notably, as Anderson, Bell, and Shirky (2012) write, while there is less concern today for the ongoing sustainability of large newspapers like the *New York Times* or the *Washington Post*, there is significant concern today about the economic viability of smaller local news organizations around the country. Indeed, large newspapers in several comparably large metropolitan areas in the US including Denver, CO and Seattle, WA have closed down or gone online only in recent years. Further, most newspapers in recent years have had to scale down the size of their journalism staffs (Starkman, 2010).

While a few cities such as New York City, Los Angeles, or Chicago are individually unique as very large US cities and thus probably unique compared to most other US cities, the Twin Cities is a moderately sized metropolitan area with a population that is comparable to numerous other metro areas in the United States. Indeed, as a media market with a population of 3.34 million people, the Twin Cities is among 21 Metropolitan

Statistical Areas that have between 4.55 million and 2 million people and among 30 cities with between 4.55 million and 1.5 million (US Census, 2010). Thus, a case study of the networked gatekeeping process within the Twin Cities is expected to have direct relevance for our understanding of patterns that of news diffusion within numerous other comparably-sized US cities. It is also notable that the Twin Cities make up the largest metropolitan area in Minnesota and contain the state's capital. This makes the Twin Cities metropolitan area similar, in terms of its political importance to the state, to the largest metropolitan areas and state capital cities in most other US states.

#### **5.9a BOUNDARY SPECIFICATION AND “FINDING THE ACTUAL GATEKEEPERS”**

Some conceptual clarifications are necessary towards beginning to consider an empirical investigation of the observable networked gatekeeping process as it occurs within a particular community. For one, in the paper where he originally described his field theory and the concept of gatekeepers, Kurt Lewin (1947) wrote that “the first diagnostic task” in efforts to study what we can now call the gatekeeping process “is that of finding the actual gate keepers” (p. 145). Within the 20th century media environment, it was essentially unnecessary to look for the gatekeepers. That is because in that era, organizational affiliation with a major news platform, by definition, is what granted media workers and news organizations their status as gatekeepers. Within the modern gatekeeping process that occurs within the structural relations of an internet-based social network, however, it has essentially become necessary to once again find the actual

gatekeepers. In this new conception of gatekeeping as a process that occurs within the relational structure of a network, we might call these modern central actors *network gatekeepers, influentials, or hubs*.

The question of who the influentials are in a networked gatekeeping process immediately gives rise to a second, related challenge necessary in many social network analyses: that of *boundary specification*. That is, social network analysis often requires the researcher to first address the boundary specification question of “where does a researcher set the limits when collecting data on social relations that, in reality, may have no obvious limits?” (p. Knoke and Yang, p. 165). Just as it was unnecessary to find the actual gatekeepers in the 20<sup>th</sup> century media environment, there were also clear boundaries for being actively engaged in the gathering, sorting, reporting, and dissemination processes that makes up the gatekeeping process. That is, the boundaries for determining who could count as gatekeepers in the 20<sup>th</sup> century gatekeeping process started and ended with professional journalists and the major news organizations they worked for who owned the print and broadcast news platforms.

For the empirical study in this paper, a first level of boundary specification is the decision to collect data from the Twitter API. Secondly, the boundaries for my social network analyses are further established by a chosen focus on the networked gatekeeping process as it occurs within the local news ecology in the Minneapolis and St. Paul metropolitan area in Minnesota—also known as the Twin Cities. But still, even with this

criteria established, there are no obvious limits further to the boundaries for the social network that is relevant for understanding the networked gatekeeping process within the Twin Cities news ecology. This is because for one, as I wrote previously, the boundaries of what counts as journalism are being significantly challenged (Lewis, 2012) today. As such, boundary specification of the network of participants engaged in the news construction and diffusion process that is relevant to some given community presents an important challenge for empirically studying the networked gatekeeping process.

The challenge and importance of boundary specification becomes especially clear when considering that there is so much communication on Twitter that has nothing to do with the news ecology of any defined geographic area. Indeed, at a time when Twitter was rapidly diffusing into broad public use, the *New York Times* columnist Maureen Dowd (2009) suggested that the site is nothing more than “a toy for bored celebrities and high-school girls.” And while it is true Twitter contains a lot of communication that is inconsequential for the public as a whole, this fact only makes clear the need to identify the boundaries of a social network within Twitter that captures meaning for our understanding the gatekeeping process and the place of journalism within it.

This problem of boundary specification is not unique to social network analyses studies of internet-mediated communication. Rather, efforts to conduct social network analyses of human relational structures and communication patterns in “offline” life are frequently challenged by the initial question of boundary specification.

Numerous scholars have discussed the challenge of boundary specification for social network analysis (Marin & Wellman, 2011; Borgatti & Halgin, 2011). Borgatti and Halgin provide a useful directive for understanding how to go about the specification of boundaries for social network analysis:

The naïve concern is that we may select nodes “incorrectly,” accidentally excluding nodes that should not have been. In reality, however, the choice of nodes should not generally be regarded as an empirical question. Rather, it should be dictated by the research question and one’s explanatory theory” (p. 1169).

Towards considering possible research questions for this study then, it is necessary to take into account Borgatti and Halgin’s advice. Indeed, there are several research questions that stem from the theory and literature covered in this study. In the following sections, I lay out an argument for how the ideas of socially responsible journalism and relevant journalism can become part of a dual mission in doing journalism that is both socially responsible and good for the business of news.

### **5.9b WHAT “RESPONSIBILITY” DOES JOURNALISM HAVE FOR DEMOCRACY?**

The American publisher Nelson Poynter long ago made the suggestion that in spite of the status of news organizations as businesses, they have a special obligation to the public such that their profit motives “cannot compromise with the integrity of the news.”<sup>2</sup>

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<sup>2</sup> The principles that Poynter developed in 1947 can be viewed at: <http://ajrarchive.org/article.asp?id=1536>,

And yet as Sullivan (2006) notes, while newspaper organizations generally claim to take seriously the idea that they are public goods that ultimately belong to their communities, actual evidence suggests that “many executives view good journalism more as a byproduct of business success than as a source of it.” The common refrain by executives according to Sullivan has been that “we need to be profitable so that we can continue to do good journalism” (p. 67). So how does a news organization resolve its business interests in a profit-driven media market with its democratic responsibility? Given that profit margins for newspapers in the 20<sup>th</sup> century were at 20 to 30 percent (Anderson, Bell, and 2012) and quality did not even come first in that era, how can we expect news organizations to operate in accordance with the democratic principles that they are normatively expected to uphold?

The first step in answering this question involves considering the premise of Poynter’s position that journalism must primarily serve a democratic purpose before any business considerations. Importantly, Poynter’s argument is based upon a social responsibility model of journalism that I discussed earlier and thusly reflects a journalistic theory of democracy as well. To recap, within this view of journalism’s place in democracy, (1) journalism’s role is to inform citizens, (2) citizens get more engaged when they are more informed, and (3) democracy works better with more citizens engaged (Gans, 1998). Each point in this theory follows from the last and comes back to the ultimate belief that the health of democracy is directly contingent upon the health of

journalism.

But is this premise accurate? Sullivan (2011) writes that one of the fundamental problems with the social responsibility model of journalism is that it is based on a “mass” approach to news distribution which perceives that the job of journalist is to get their media messages to reach the greatest number of people possible. But within an increasingly internet-based media model in which public communication is interactive, the viability of a mass approach to doing journalism unravels.

According to Sullivan (2011), a common complaint about the journalism produced by newspaper organizations today is that it lacks relevance for the citizenry. This critique is particularly significant, according to Sullivan, given the agreement across most media observers that being relevant to audiences is one of the most important imperatives of doing good journalism. And indeed, the idea of being relevant today, within a networked media environment, directly contradicts any premise for doing journalism that is based upon a mass approach to attracting audiences. That is, a mass approach to doing journalism and getting the public engaged with the news implicitly views its targets as a passive, homogenous audience in which everyone has the same wants and needs. Such an approach ignores the reality of a networked media environment in which “the people formerly known as the audience” (Rosen, 2006) must be viewed as active, heterogeneous recipients.

Journalism scholar Keith Stamm (see Stamm & Fortini-Campbell, 1983) long ago



articulated a model for community journalism such that its focus should be on an understanding of a naturally interdependent relationship between audiences and local journalism. As Mersey (2010) explains this connection in Stamm's model between local news and the community, "those who read their local newspaper are likely to be connected to their local community, and those who are connected to their local community are likely to read their local newspaper" (p. 525).

Perhaps more today than several decades ago when Stamm proposed this model, this model points to a kind of participation and symbiosis between journalists and the collective public as active recipients which requires journalists to better understand and engage with their audiences. But how can journalists understand their entire audiences at once? It is not practical to suggest that journalists should simply engage with anyone on social network sites who talks to them. Indeed, there are likely to be audience members who are highly expansive but not worth listening to, what some would colloquially call "loud mouths."

Within a networked gatekeeping process within a social awareness system like Twitter then, an important part of being relevant involves understanding other participants in the network—both other journalists and non-journalists—who are influential within the overall discussion around news that is important to the local community. These other influential participants in the conversation around news are what I would call influentials in the networked gatekeeping process, or "network gatekeepers."

Generally speaking, as Meraz and Papacharissi (2013) note, prominence within a social network around the discussion of news cannot simply come from well-known people talking to other well-known people. Rather, this kind of prominence and thus, the extent of one's influence on the agenda setting of the modern news environment has been observed to come largely from the aggregated attention from numerous active audience members who mostly reside within small, tight clusters on the periphery of the networked gatekeeping process.

When Lewin said that it is important to find the gatekeepers, his reasoning was that this was the key to connecting with the most influential people in a person's life. Similarly, the process of understanding the other people and organizations that are influential in the networked gatekeeping process allows for us to recognize the network actors that have special relevance within the networked gatekeeping process. Thus, the following is a major research question that I will seek to address with this paper:

**Research Question 1: In a social network analysis of discussion about news on Twitter that is connected to issues in a local community, who are the most influential people and organizations in this network—that is, who are the network gatekeepers?**

For the empirical study in this paper, I describe two approaches to boundary specification that allow us to go about finding the network gatekeepers in a networked gatekeeping process. One kind of boundary specification is defined by discussion around news as reported by established news organizations within the Twin Cities—that is, a

network of Twitter tweets that contain URL links to the websites for local news organizations. A social network analysis that is defined this way will, by definition, bias the position of these news organizations. Therefore, the boundaries for these kinds of networks conceive of the gatekeeping process as it has traditionally been viewed: as revolving around established news organizations. A network whose boundaries are defined with these terms in itself can reveal useful information, such as pointing to which journalists from these professional news organizations are the most central to the flow of local news on Twitter. Additionally, such a network is likely to reveal some network actors outside of news organizations that are also particularly central to the flow of news as it is reported by these news organizations. Moreover, a social network whose boundaries are defined this way is also useful for comparison to a second type of network that is specified not by orientation to established organization but rather, through orientation around events and issues that are important for a local community.

In a second social network for Twitter data then, I define the boundaries for social network analysis based on events and issues of local importance—specifically, those issues and events that are revolving around the #mnleg hashtag which involves discussions that are relevant to the actions of the Minnesota State Legislature. Collection of this event/issue-centered network sets up a comparative analysis between the news-organization centric dataset and the event/issue-centered dataset. That is, I will analyze important differences across these two datasets in which the boundaries are defined in two

distinct ways: the first dataset conceives of the networked gatekeeping process as revolving around Twin Cities news organizations and the second one conceives of the networked gatekeeping process as revolving around events and issues of relevance in the Twin Cities. Respectively, these two types of social networks conceive of the gatekeeping process in 20<sup>th</sup> century terms (with news organizations at the center) and in 21<sup>st</sup> century terms (with the networked gatekeeping process revolving around news itself).

Defining the boundaries for social network analysis based on the logic of the second dataset, in which the process is seen as revolving around the news, acknowledges the idea from the sociology of professions literature that the boundaries for what can count as news are no longer controlled by traditional news organizations or professional journalists. By identifying the network gatekeepers in a network that revolves around events and issues of local importance, we can better identify the body of old gatekeepers and new gatekeepers who are relevant to the networked conversation of news. In addition to the traditional gatekeepers in the media industry, it is important for our understanding of the networked gatekeeping process to recognize the new mixture of network gatekeeper types including politicians, bloggers, businesses, and other influential voices that are influential in the modern media environment. This leads to an additional research question:

**Research Question 2: In a Twitter-based social network that revolves around events instead of around news organizations, do the network gatekeepers include a greater diversity of network gatekeeper types?**

## **CHAPTER 6. METHODS AND RESULTS**

### **6.1 TWITTER AS MICROCOSM OF THE NETWORKED GATEKEEPING PROCESS**

There are two core theoretical frameworks at the heart of this study: gatekeeping theory and graph theory. The latter, graph theory, provides the underlying conceptual basis for the primary method, social network analysis, that is used for the empirical study in this dissertation. As I wrote in Chapter 2, gatekeeping theory as it was most recently described by Shoemaker and Vos (2009) has long history as the theory from the communication field for understanding how “the countless bits of information” about current events become “the limited number of messages that reach people every day” (Shoemaker and Vos, 2009, p. 1). But that theory was developed primarily within a “transmission” model of media in which the gatekeeping process was comprised of “senders” sending messages to “receivers” (McQuail, 2010) in an almost entirely one-way direction. Further, the model for that gatekeeping process conceptualized audiences as an essentially homogenous “mass” of receivers.

The introduction and advanced development of the internet and its associated technologies, however, have enabled the development of a gatekeeping process which now occurs within the structure of network relations that are facilitated by the internet and its associated technologies. The media environment that journalists are working within is now a networked, participatory process such that “the people formerly known as the audience” (Rosen, 2006) are engaged as active receivers who play a shared part in the

control over the flow of information through social network sharing and conversation about news and information. Thus, these changes have effectively transformed the gatekeeping process into a digitally and socially networked process.

First, then, graph theory provides a complementary conceptual framework for reconceptualizing gatekeeping theory to account for the way that the network structure of the internet has transformed the gatekeeping process. Secondly, social network analysis is a useful analytical method that can be used to empirically study this now networked gatekeeping process. And thirdly, a social network site like Twitter—the public communication forum that is the object of observation for this empirical project—embodies a unique sort of microcosm of the networked gatekeeping process overall. This nature of Twitter makes it adequately reflective of some important patterns that are occurring within the overall internet-mediated modern gatekeeping process.

Below, I describe in detail the processes for data collection, organization, and analysis of several Twitter datasets that can provide useful for better understanding the networked gatekeeping process. Each step is part of the total empirical study conducted for this dissertation that is designed to get a picture of how the news gatekeeping process ensues in the “Twittersphere” (the public information distribution and communication that occurs on Twitter). Specifically, the focus of my study is confined to observation and analysis of the network of people and events that are locally important for deliberation about the public affairs in the Minneapolis-St. Paul metropolitan area. Also commonly

known as the Twin Cities, the Minneapolis-St. Paul metropolitan area is the 15<sup>th</sup> largest Designated Market area in the United States according to the Nielsen Company (Nielsen, 2013).

This study of gatekeeping as a networked process involves the collection and observation of social network data that might reasonably be thought to have relevance for the events and issues of local importance within the metropolitan area of Minneapolis-St. Paul, Minnesota. Towards this objective, I collected and drew upon three separate but overlapping and complementary data sets that collectively comprise a case study, revealing useful insights about the influentials and the overall network structure of the Twin Cities news ecology. To collect and analyze these data, I used the Social Network Analysis software known as NodeXL, which is an add-on for *Microsoft Excel* that allows for the collection, storage, computation, and visualization of social networks from several social network sites (for detailed information about NodeXL, see Himelboim, Smith, and Schneiderman, 2013, Schneiderman and Dunne, 2013; <http://NodeXL.codeplex.com/>). Each gathered dataset in this case study represents a network of Twitter mentions and replies that was collected using NodeXL using different search procedures based on conditions for boundary specification that derive from the research questions in this paper. **Table 6.1** briefly describes the nature of the reply and mention tweets that represent the ties in the social networks in this study.

*Table 6.1 – Description of Replies and Mentions*

<b>Replies</b>	<p>A “reply” tweet is a tweet posted by one Twitter user which is generally intended to be read by only one other Twitter user. In order for a tweet to be a reply tweet that is directed at only one other user, the tweet must begin with the @ sign in the first character space in the tweet, immediately followed by the Twitter handle of the intended recipient of the reply tweet. An example of a reply tweet is: @thomasernste What do you think of NodeXL as a social network analysis tool? Notably, the term “reply” tweet is used to refer to either an actual reply to a previous message or to any message that begins with the @ sign and a receiver’s handle.</p> <p>Replies are distinguished from “direct messages,” which are private messages, not viewable by other Twitter users, that one user can send via Twitter to a second user. While reply tweets generally only appear on the newsfeed of the target receiver, a reply tweet will appear on the newsfeed for any third user who follows both the sender and receiver node.</p>
<b>Mentions</b>	<p>One kind of “mention” tweet is a tweet posted by one Twitter user that is viewable by both the followers of that sender and also viewable by one or more specific receiver nodes whose Twitter handle appears somewhere in the tweet in the spaces after the first character space. An example of a mention tweet might be: I’ve been told that @thomasernste is using the NodeXL software to conduct a social network analysis. Notably, a mention becomes a mention instead of a reply because the tweet does not begin with the @ sign along with the receiver’s Twitter handle.</p> <p>Also of note here is that “mentions” also include retweets. A retweet is the same as a regular mention in that in both cases, the tweet contains the Twitter handle of a second node and a retweet appears for both the followers of the sender node in the retweet and it also appears in the newsfeed for the person whose tweet was retweeted. Notably, retweet is different from a mention in that it includes all or most all of the text that was previously posted by the Twitter user whose Twitter handle appears in the retweet. An example of a retweet might be if, first, a user sees a message posted by @thomasernste which says: I am learning a lot about NodeXL from their website at <a href="http://www.nodexl.com">www.nodexl.com</a>. While retweets have been crafted differently over the years, the most common way to post a retweet is for a sender to click a “Retweet” hyperlink that is adjacent to some tweet as it appears on the sender’s newsfeed.</p>

Note: Replies and mention tweets represent the ties in the social networks for this study

### 6.1a ADDRESSIVITY MARKERS

According to Hansen, Kai, Arvidsson, Nielsen, Colleoni, and Etter (2011), retweeting represents broadcasting and indicates virality and the formation of opinion on Twitter. Boyd, Gilder, and Lotan (2010) add that retweets are often a form of



endorsement. Further, tweets with URLs are especially likely to be retweeted (Suh, Hong, Pirolli, and Chi, 2010). The makers of *NodeXL* categorize retweets into the category of “mentions,” which also include other tweets by one user that mention another user’s Twitter handle. Of note, when one Twitter user retweets a message from a second user or mentions that second user’s handle in a tweet after the first character in the tweet, that tweet is considered a mention that is disseminated to the newsfeed for all users following the first user. The number of “mention” tweets listed in Table 6.1 can be understood as an indicator of the relative extent to which news from a particular news organization is getting exposure. Ultimately, I followed from Himelboim, McCreery, and Smith’s (2013) approach in combining replies and mentions into a single indicator of the network ties.

## **6.2 THE DATASETS**

The datasets in this study were collected using two types of boundary specification for the construction of social networks. Dataset 1 is a social network that centers around 16 established Twin Cities news organizations and the journalism professionals they employ. Dataset 2 is a social network that centers around the most followed Twitter accounts that are affiliated with 30 different established news organizations in the Twin Cities. The social networks in these first two datasets will be generally referred to as *news organization-centric networks*. Dataset 3 is a social network that centers around a specific public affairs event or issue—specifically, this social network is defined by the patterns of communication on Twitter that circulate around the Twitter hashtag #mnleg.

This latter type of network will generally be referred to as *event/issue centered network*.

Following from the rationale suggested by Borgatti and Halgin (2011) that boundary specification should derive directly from the research concerns involved in a particular study, these datasets address different research questions that have grown out of the theory and literature discussed in this dissertation. The various datasets discussed here have different analytical value both individually and comparatively for understanding characteristics of the networked gatekeeping process in general. Collectively, analysis of these datasets contributes to our understanding of how the networked gatekeeping process operates within a local media ecology, especially within the Twin Cities metropolitan area.

### **6.3 DATASET 1, PART 1: 1<sup>ST</sup> NEWS ORGANIZATION-CENTRIC NETWORK**

#### **6.3a SOCIAL NETWORK OF TWITTER LINKS TO 16 TWIN CITIES NEWS OUTLETS**

The first dataset I collected is a social network that derived from the following criteria for boundary specification: (1) using NodeXL, all data was collected from the population of tweets posted to Twitter over a period of 24 non-consecutive days spread out over the summer and fall of 2013; (2) all tweets from Twitter's REST API were searched for presence of the URL domain to the website for one of sixteen different Twin Cities-based news organization (example: [startribune.com](http://startribune.com)). The identified links could be either a link to the front page of the site or a link to a specific article from one of these news organizations. Of note, even if a link to one of these news sites is a shortened URL, NodeXL will still identify this site and collect these tweets; (3) the sixteen news

organizations that were searched were chosen if they do at least some reporting on political issues that are directly relevant to being informed for engagement in the local democratic process. Thus, news outlets dedicated strictly to sports, entertainment, or lifestyle news were disregarded for this dataset; (4) most of the news organizations in this dataset were chosen, first, because they are believed to be the largest Twin Cities news organizations from the following formats: newspaper, television, radio, and online only.

In addition, during pilot testing I discovered media organizations beyond the major newspapers, online, TV, radio news, and online only organizations. These non-major news organizations that I discovered as viable news organizations during pilot testing included the Twin Cities Business Journal, Twin Cities Business Magazine, The Uptake, Twin Cities Daily Planet, and the Minnesota Progressive Project. The decision was made to include some newer online only news organizations in the dataset based on the supposition that the internet enables independent news organizations with no traditional mass media platforms and no traditional business model for journalism to emerge as important players in the networked gatekeeping process. **Table 6.2 restates and elaborates on the conditions and characteristics for constructing Dataset 1.**

The social network that resulted from these conditions for boundary specification is comprised of a total of 27,700 nodes and 69,866 total edges (each of which represents a single tweet). 33,220 of these edges are self-loops (singleton tweets, or tweets that are standalone posts that are not directed at another Twitter user) and 36,646 are ties between

*Table 6.2- Characteristics of Dataset 1*

1	Data was collected from the Twitter social network site using NodeXL
2	Data was collected from the population of tweets from the Twitter Rest API posted to Twitter over a period of 24 days spread out over the summer and fall of 2013*
3	Data was collected through separate searches for the URLs of 16 different news organizations (i.e. example: startribune.com) that do journalism about local news in the Twin Cities metropolitan area in Minnesota.
4	All data was compiled into a single social network
5	The 16 news organizations were chosen because they do at least some reporting on political issues that are directly relevant to being informed for engagement in the local democratic process. Thus, news outlets dedicated strictly to sports, entertainment, or lifestyle news were disregarded.**
6	Nodes in Dataset 1 are either sender or receiver nodes in tweets containing a URL for one of 16 news organization
7	Ties in Dataset 1 are the tweets containing a URL for one of 16 news organizations

\*Ideally, one would collect data for all 16 news organizations on all of the same days to ensure that all data represents news website link frequencies surrounding the same basic flow of news in the Twin Cities. Most of the data from all 16 news organizations was collected on all of the same 24 days but a few days throughout the data collection were missed due to inconsistencies with data gathering from Twitter's REST API. To compensate for missed days for some news sources, I collected data for some additional days for some news organizations to ensure that I had 24 full days of data collected from each news organization. Notably, there is some potential for problems interpreting meaning from these data collection problems and decisions if certain days were unusually high or low in overall hits for links to a particular news organization.

\*\*This list includes the major news organizations in the Twin Cities that report and discuss politically relevant local news plus a few were added after they appeared in adequate frequencies during data gathering pilot tests. Some minor political news organizations, including one called Politics in Minnesota (politicsinminnesota.com) may have been overlooked in constructing this dataset even as Politics in Minnesota seems on par in terms of typical exposure with an organization like the Minnesota Progressive Project.

two separate users (replies or mentions). To clarify, in this dataset, the nodes/vertices in the network are Twitter users who are either the “senders” or “receivers/sources” of replies

or mentions in this network. The actual reply or mention tweets between any two users represent the ties/edges in this social network.

### **6.3b RESULTS FOR DATASET 1, PART 1**

**Table 6.3** contains information about the network of tweet data collected for Dataset 1 that is relevant for addressing Hypotheses 1A and 1B. The total number of Twitter accounts that have an affiliation with each news organization include both personal Twitter accounts and organizational accounts. In addition to the primary organizational account for each news organization and the accounts for individual journalists, many organizations also have divisional accounts for departments such as the sports department, the business department, or the entertainment department.

Notably, the number of Twitter accounts affiliated with a particular news organization are highly correlated with the number of overall mentions for each news organization. That is, given a one-tailed t-test with 14 degrees of freedom for these 16 pairs ( $df = N-2$ ) rows, the Pearson's  $r$  value was calculated as 0.929. This correlation is statistically significant at the 0.005 level. This significance in this correlation is notable because it indicates that the number of users for a given organization is highly correlated with the exposure that a particular organization is likely to get on Twitter. To some extent

*Table 6.3 - Data for 16 Twin Cities News Organizations*

<b>News Organization &amp; URL domain</b>	<b>Type of News Org.</b>	<b>Total # of Affiliated Twitter Accounts*</b>	<b>Total # of URLs in mentions</b>
<b>Star Tribune</b> <b>startribune.com</b>	Daily newspaper, private for profit	198	9213
<b>St. Paul Pioneer Press</b> <b>twincities.com</b>	Print, private for profit	89	4269
<b>Minnesota Public Radio</b> <b>minnesota.publicradio.org</b>	Radio, public nonprofit	88	4200
<b>WCCO</b> <b>cbslocal.minnesota.com</b>	TV and radio, private for profit	86	3110
<b>City Pages</b> <b>citypages.com</b>	Print, private for profit	16	2552
<b>Kare11</b> <b>kare11.com</b>	Television, private for profit	81	2354
<b>MinnPost</b> <b>minnpost.com</b>	Online only, private nonprofit	37	2225
<b>KSTP</b> <b>kstp.com</b>	TV, private for profit	58	2141
<b>Twin Cities Business Journal</b> <b>bizjournals.com/twincities</b>	Print, private for profit	17	1881
<b>Twin Cities Daily Planet</b> <b>tcdailyplanet.net</b>	Online only, private nonprofit	11	1030
<b>KMSP-FOX</b> <b>myfoxtwincities.com</b>	TV, private for profit	55	596
<b>Bring Me The News</b> <b>bringmethenews.com</b>	Online only, pri- vate for profit	9	582
<b>Twin Cities Public Television</b> <b>tpt.org</b>	TV, public non profit	10	465
<b>Finance and Commerce</b> <b>finance-commerce.com</b>	Print, private for profit	6	448
<b>The Uptake</b> <b>theuptake.org</b>	Online only, pri- vate nonprofit	7	183
<b>Minnesota Progressive Project</b> <b>mnprogressiveproject.com</b>	Online only, pri- vate nonprofit	3	91

*\*Totals may not be exact, dependent upon new hirings, attrition, and possible slight collection errors*

this could mean that the larger your organizational workforce who have Twitter accounts, the larger your overall exposure “footprint” on Twitter is likely to be.

The total number of Twitter accounts affiliated with each news organization that I discovered is based on a variety of methods for searching and finding these Twitter accounts. These methods included, first, the use of the website [followerwonk.com](http://followerwonk.com) to search Twitter profiles for self-identified affiliation with the given news organization. I also conducted a crosscheck with Twin Cities journalist David Brauer’s Twitter lists of Twin Cities journalists available for public access on Twitter and on a 2012 blog post (Brauer, 2012) where Brauer listed the top 100 most followed Twitter accounts on Twitter that are affiliated with Twin Cities news organizations. There was also some serendipitous discovery of some Twitter profiles affiliated with the various organizations throughout the data collection process, including discovery of the organization the Minnesota Progressive Project and its three affiliated Twitter accounts.

It must be noted here too that the 16 news organizations chosen for inclusion in these datasets are not assumed to be an exhaustive list of all Twin Cities news organizations. Significant efforts were made to identify not only the most prominent news organization in the Twin Cities that report political news about events and issues in the Twin Cities, but also smaller political news organizations that have developed in recent years. The clearest reason why all possible “news organizations” may have not be identified for this dataset is that the definition of what can count as a news organization is

not clear in a networked gatekeeping process.

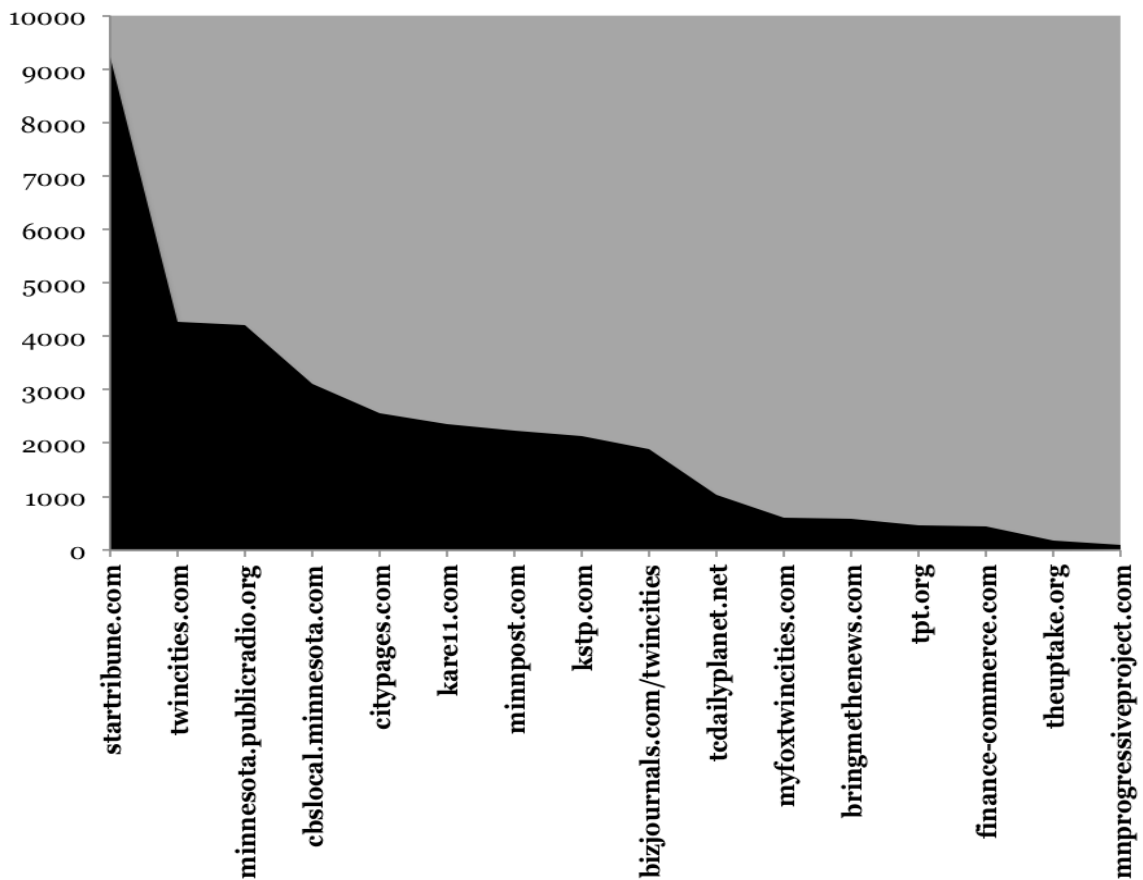
On one level, in an evolving media environment, new news organizations come and go frequently. When a person or group starts a blog, that person or group may reasonably claim to be professional journalists or at least para-professional journalists. Further, there are also some established news organizations that I did not choose to include in my data collection, including several suburban and city neighborhood media outlets. Such smaller organizations were mostly ignored for the sake of efficiency even as they may have added value to this study. The marginal news organizations I chose to include, including The Minnesota Progressive Project (MPP), are not known to definitely be even the biggest emerging media organizations. But I did see the MPP appear in pilot testing stage for this analysis and determined that it would be important to include, especially as it is central in conversation around politics in Minnesota. Overall, while this selection of 16 news organizations for inclusion here was primarily based on their prominent observable presence on Twitter then, it could be that some small news organizations such as Politics in Minnesota would have been better to choose than some that are in this sample.

Dataset 1 is directly relevant towards addressing *Hypothesis 1A* in which I ask if the audience exposure diversity (Napoli, 2011) of news sources on Twitter follows a power law distribution. Further, the data in Table 6.3 are also relevant for *Hypothesis 1B* in which I predict that the Herfindahl-Hirschmann Index (HHI) for this exposure diversity data will be statistically similar to the HHI that Hindman found when he evaluated the



concentration of the Twin Cities news market in his 2011 study. In Hindman's study, he found moderate to highly concentrated distributions of audience exposure in all local media markets in the United States, including the Twin Cities. **Figure 6.1** is a graph of the distribution of overall links to sixteen Twin Cities news organizations over the data collection period.

*Figure 6.1 - Power law distribution of tweet frequency for 16 Twin Cities news URLs*



The Y-axis represents the total number of times over 24 non-consecutive days that a link to an article from the listed news website appeared on Twitter.

The X-axis represents the 16 news organizations included in this study, ranked from most to least visited.

As I hypothesized in *Hypothesis 1A*, the distribution of exposure to Twin Cities news organizations on Twitter does follow a relatively skewed power law distribution which is shown in visual form in Figure 6.1. *Hypothesis 1A is supported*. Furthermore, in his study of internet traffic distribution for news organizations in local news ecologies, Hindman (2011) found an HHI for the Twin Cities news ecology of 1598—any HHI with any index over 1500 is considered a moderately concentrated distribution by the Department of Justice (Department of Justice, 2013). From the data I collected, I calculated the HHI for the distribution of links to the websites for Twin Cities news organizations on Twitter during the collection period. The HHI score for this distribution is 1,263. This number indicates a lesser level of concentration of market power compared to Hindman’s findings when we look solely at the distribution of links to these news organizations across all mentions on Twitter during the collection period. Therefore, *Hypothesis 1B is not supported*. I discuss the implications of these findings in my analysis in Chapter 7.

## **6.4 DATASET 1, PART 2: 1ST NEWS ORGANIZATION-CENTRIC NETWORK:**

### **6.4a TOP 100 “NETWORK GATEKEEPERS” IN FIRST SOCIAL NETWORK**

Before revealing who the “networked gatekeepers” are according to the conditions for boundary specification in Dataset 1, it is first useful to consider the broader context of the entire network of people and organizations that actively use Twitter. The number of “followers” a given user has appears on all user profile pages; this follower number is

commonly used in popular discussions about Twitter as a surface level indicator of a user's overall popularity on the social network site. Further, in popular discussions about Twitter, much is made of which celebrities or prominent people and organizations have the most followers.

Generally speaking, follower numbers reflect one basic measure of one's prominence in society. The most followed users on Twitter are generally famous on a national and international level within the United States, with several solo music performers and other entertainment celebrities taking many of the top spots on this list. But without the capacity to conduct a social network analysis of the underlying structure of a network and without appropriate boundary specification within the massive network of Twitter users, most Twitter users probably cannot recognize the important topological features of the social networks of users around various topics. This problem of recognizing and learning from the patterns of discussion on Twitter seem especially challenging for understanding the news that might be relevant within a local news ecology. The data in **Table 6.4** is a list of Twitter users that have the most followers and who appear as a node in at least once communication dyad among the 27,700 nodes and nearly 70,000 tweets that appear in Dataset 1.

My intent for Table 6.4 is simply to illustrate that the most widely known measures of Twitter, the follower figures, are not particularly useful for actually understanding what can be important about Twitter for journalism and the news diffusion process in any given

Table 6.4 - Top 35 most followed nodes that appear in Dataset 1

<b>Nodes (Twitter users)</b>	<b>Type</b>	<b># of followers</b>
<b>Ladygaga</b>	Entertainment	39,783,374
<b>Barackobama</b>	politics – national	35,419,985
<b>taylorswift13</b>	Entertainment	33,982,854
<b>Ddlovato</b>	Entertainment	19,590,668
<b>Kimkardashian</b>	Entertainment	18,709,159
<b>Aplusk</b>	Entertainment	14,725,863
<b>Cnnbrk</b>	news, international	13,037,825
<b>Facebook</b>	Business	11,109,121
<b>Kanyewest</b>	Entertainment	10,068,935
<b>Nytimes</b>	news – national	9,944,622
<b>Carlyraejepsen</b>	Entertainment	8,459,761
<b>Tomhanks</b>	Entertainment	6,979,276
<b>Espn</b>	news - national sports	6,966,486
<b>google</b>	Business	6,756,648
<b>codysimpson</b>	Entertainment	5,951,183
<b>sportscenter</b>	news - national sports	5,652,575
<b>theonion</b>	satirical news	5,442,588
<b>sarahksilverman</b>	Entertainment	4,579,937
<b>starbucks</b>	Business	4,157,545
<b>whitehouse</b>	politics - national	4,074,869
<b>piersmorgan</b>	news - national	3,680,500
<b>reuters</b>	news - national	3,519,590
<b>wholefoods</b>	Business	3,494,620
<b>nelly_mo</b>	Entertainment	3,316,445
<b>huffingtonpost</b>	news - national sports	3,249,894
<b>foxnews</b>	news - national	3,113,915
<b>pontifex</b>	religious - Pope	2,881,897
<b>sarabareilles</b>	Entertainment	2,870,887
<b>schwarzenegger</b>	Entertainment	2,845,809
<b>Cbsnews</b>	news - national	2,796,972
<b>bigtimerush</b>	Entertainment	2,734,966
<b>Questlove</b>	Entertainment	2,714,070
<b>Thatkevinsmith</b>	Entertainment	2,463,377
<b>Common</b>	Entertainment	2,293,974
<b>loganhenderson</b>	Entertainment	2,274,567

context. One might even say that these numbers, by their prominence as indicators of Twitter popularity, serve to implicitly obscure the more meaningful characteristics of some specified network with relevant boundaries for a network of news diffusion that might be important for particular geographic locations or for specific issues. If I am a journalist in the Twin Cities, for example, the most familiar and ultimately superficial information I will have about relative differences in the popularity or influence of users is the follower numbers of users on all of Twitter.

But is such information actually useful to a local journalist? Not really. And even if several highly followed celebrities appear in a discussion within a communication network that is locally oriented, as many did in the network collected for Dataset 1, this does not mean that they have any particular local relevance. What is most likely is that such celebrities might appear in the network of conversation about local news because someone who lives local sent them a direct message or retweeted one of their messages. But this tendency in which celebrities may have many incoming communication ties does not necessarily make such a national celebrity relevant to a particular local media network. Indeed, as Meraz and Papacharissi (2013) note, it is common for celebrities to be the frequent objects of mention tweets but with very few or zero reciprocated tweets with most users.

**Research Question 1** involves the question of who the most influential users are in this network. My rationale behind pursuing this research question is that identification

of the most central Twitter users within this social network of conversation around the news reported by news organizations begins to give us an idea of who might be included among the new central actors or gatekeepers within the networked gatekeeping process. As stated previously, the social network collected for Dataset 1 is, first, comprised of nodes that represent Twitter users. Secondly, the ties in this dataset represent the reply and mention tweets between any two users in the network of tweets that contain a URL link to the website for a Twin Cities news organization. **Table 6.5** below contains data for the Twitter users who are the most central in this network based on indegree centrality—in this network, indegree centrality represents a straightforward count of the number of times that a user is the target or receiver node in a reply or mention tweet.

*Table 6.5 - Top 100 Nodes in Dataset 1 by Indegree Centrality, in rank order*

<b>Nodes (Twitter users)</b>	<b>Name of Person/ Org.</b>	<b>Description</b>	<b>News beat</b>	<b>Network Gatekeeper type</b>	<b>Political leaning</b>	<b>Indegree centrality</b>
<b>startribune</b>	Minneapolis Star Tribune	Minneapolis news-paper	General	Incumbent media	Non	1530
<b>mprnews</b>	Minnesota Public Radio	Radio news organization in Twin Cities	General	Incumbent media	Non	1033
<b>pioneerpress</b>	St. Paul PiPress	Newspaper in St. Paul	General	Incumbent media	Non	1022
<b>kare11</b>	Kare11 - TV	Twin cities television news org.	General	Incumbent media	Non	893
<b>Kstp</b>	KSTP TV	Twin cities TV news org.	General	Incumbent media	Non	828
<b>Wcco</b>	WCCO - TV	Television news org. in TC	General	Incumbent media	Non	675
<b>citypages</b>	City Pages	Twin Cities print news org.	General	Incumbent media	Non	590

<b>minnpost</b>	MinnPost	Online only local news organization	General	Hybrid	Non	500
<b>naifco</b>	unclear	Promotes nutritional products	NA	Business	Non	444
<b>mspbnews</b>	MSP Business Journal	Business news org. in Twin Cities	Business	Incumbent media	Non	342
<b>bringmn</b>	Bring Me the News	Curator/aggregator of local news	General	Hybrid	Non	278
<b>mayorrrtrybak</b>	RT Rybak	Minneapolis mayor	NA	Political	Left	216
<b>stribsports</b>	Minneapolis Star Tribune	Sports division of Star Tribune	Sports	Incumbent media	Non	176
<b>gimme_noise</b>	Reed Fischer	City pages music editor	Entertainment	Incumbent media	Non	167
<b>tcdailyplanet</b>	Twin Cities Daily Planet	Local online only news organization	NA	Hybrid	Non	167
<b>myfox9</b>	KMSP FOX	Twin cities television news organization	General	Incumbent media	Non	153
<b>mikeberardino</b>	Mike Berardino	MN Twins beat writer for St. Paul Pioneer Press.	Sports	Incumbent media	Non	145
<b>dailycircuit</b>	Daily Circuit radio show	MPR radio program	Entertainment	Incumbent media	Non	127
<b>mnstatefair</b>	Minnesota State Fair	Twitter handle for MN State Fair information	NA	Entertainment	Non	116
<b>mayoclinic</b>	Mayo Clinic	Minnesota-based hospital with national profile	NA	Health organization	Non	115
<b>psychosuzis</b>	Psycho Suzis	Twin Cities bar/restaurant	NA	Business	Non	107
<b>stribopinion</b>	Minneapolis Star Tribune	Opinion section for Star Tribune	Public affairs	Incumbent media	Non	105
<b>newsbreaker</b>	Ora TV	New digital TV organization	Entertainment	Hybrid	Non	97
<b>mspbjevomhof</b>	Jon Vomhof	Business reporter, MSBJNews	Business	Incumbent media	Non	95

<b>psych4you</b>	Psychology for you	Inspirational tweets	NA	Entertainment	Non	95
<b>wccoradio</b>	WCCO Radio	Radio news organization in TC	General	Incumbent media	Non	94
<b>thereplacements</b>	The Replacements	Minneapolis based music band	NA	Entertainment	Non	94
<b>atrupar</b>	Aaron Ruper	"Blogger" for City Pages	Public affairs	Incumbent media	Non	79
<b>stribroper</b>	Eric Roper	Public affairs reporter, Star Tribune	Public affairs	Incumbent media	Non	79
<b>Tpt</b>	Twin Cities Public Television	Public television station in the Twin Cities.	General	Incumbent media	Non	77
<b>malbertnews</b>	Mark Albert	Former KSTP Reporter, no current employer	NA	Citizen	Non	77
<b>betsyhodges</b>	Betsy Hodges	Minneapolis Mayor-elect	NA	Political	Left	73
<b>bigtimerush</b>	Big Time Rush	National entertainer (music group)	NA	Entertainment	Non	70
<b>joecestrib</b>	Joe Christenson	NCAA football reporter for Star Tribune	Sports	Incumbent media	Non	69
<b>russostrib</b>	Michael Russo	Covers pro hockey for Star Tribune	Sports	Incumbent media	Non	69
<b>classicalmpr</b>	MPR classical music	Classical music program, MPR	Entertainment	Incumbent media	Non	68
<b>gophersnow</b>	Marcus Fuller	Pioneer Press MN Gopher sports reporter	Sports	Incumbent media	Non	64
<b>businessmn</b>	Finance & Commerce	Minnesota business magazine	Business	Incumbent media	Non	63
<b>lavelleneal</b>	La Velle Neal	Covers MN pro baseball for Star Tribune	Sports	Incumbent media	Non	62
<b>carlospenadow</b>	Carlos Pena	National music performer	NA	Entertainment	Non	61
<b>hotdishblog</b>	City Pages food blog	City Pages food blog.	Entertainment	Incumbent media	Non	60



<b>govmarkdayton</b>	Mark Dayton	Minnesota Governor	NA	Political	Left	60
<b>dbrauer</b>	David Brauer	Journalism, MinnPost	Public affairs	Hybrid	Non	57
<b>christsrib</b>	Chris Riemenschneider	Star Tribune music writer	Entertainment	Incumbent media	Non	54
<b>webertom1</b>	Tom Weber	Co-host, MPR Daily Circuit	Entertainment	Incumbent media	Non	52
<b>kevinmaddendc</b>	Kevin Madden	National political strategist	PR	Political	Right	52
<b>jerryzgoda</b>	Jerry Zgoda	Pro basketball reporter, Star Tribune.	Sports	Incumbent media	Non	52
<b>patrickreusse</b>	Patrick Reusse	Columnist at the Star Tribune	Sports	Incumbent media	Non	52
<b>mspbjsamblack</b>	Sam Black	Senior Reporter MSBJNews	Business	Incumbent media	Non	51
<b>vikings</b>	Minnesota Vikings	TC Pro Football team	NA	Entertainment	Non	50
<b>rachelsb</b>	Rachel Stassen-Berger	Star Tribune political reporter	Public affairs	Incumbent media	Non	49
<b>Samsteeleponder</b>	Samantha Ponder	National sports reporter, ESPN	Sports	Incumbent media	Non	49
<b>vsaucetwo</b>	Kevn Lieber	Amazing Humans & The Best of the Internet	Entertainment	Hybrid	Non	48
<b>otiswhite</b>	Otis White	Public affairs consultant	PR	Blogger	Non	48
<b>randball</b>	Michael Rand	Digital sports editor, Star Tribune	Sports	Incumbent media	Non	48
<b>target</b>	Target Co.	National retailer based in Twin Cities	NA	Business	Non	47
<b>surlybrewing</b>	Surly Brewing Co.	Local beer brewery	NA	Business	Non	46
<b>jasonkburnett</b>	Jason Burknett	Citizen	NA	Citizen	Non	45

<b>theuptake</b>	The UpTake	Twin cities public affairs news outlet	NA	Hybrid	Left	45
<b>btrtourupdater</b>	Big Time Rush band	National music performer	NA	Entertainment	Non	44
<b>beth_hawkins</b>	Beth Hawkins	MinnPost education reporter	Public affairs	Hybrid	Non	44
<b>progress2day</b>	America United	Citizen activist organization	Public affairs	Citizen	Left	44
<b>accessvikings</b>	Access Vikings (Star Tribune)	Coverage of Minnesota Vikings for Star Tribune	Sports	Incumbent media	Non	44
<b>mspbjhammer</b>	Jim Hammerand	Digital editor @mspbjnews	Business	Incumbent media	Non	43
<b>mnsure</b>	MNSure information	Information about Minnesota government healthcare	Political	Government agency	Non	43
<b>drudge_report</b>	Drudge Report	U.S. based news aggregation website	Public affairs	Hybrid	Right	43
<b>panopticon13</b>	Kevin Hoffman	Editor of City Pages	Public affairs	Incumbent media	Non	43
<b>cpdressingroom</b>	Jessica Armbruster	City pages fashion writer	Entertainment	Incumbent media	Non	42
<b>amyklobuchar</b>	Amy Klobuchar	US Senator	NA	Political	Left	42
<b>stpaulbuzz</b>	Breaking St. Paul News	Community service media	Public affairs	Blogger	Non	42
<b>stribdw</b>	Dan Wiederer	Pro football writer for Star Tribune	Sports	Incumbent media	Non	42
<b>Pbs</b>	Public broadcasting	Education is the only solution, everything else is a Band-Aid.	General	Incumbent media	Non	41
<b>purplepride</b>	Minnesota Vikings fan site	Minnesota Vikings fan site.	Sports	Citizen	Non	41
<b>Mpr</b>	Minnesota Public Radio	Radio/online news organization in Twin Cities	General	Incumbent media	Non	40
<b>mallofamerica</b>	Mall of America	Shopping Mall in Twin Cities	NA	Business	Non	40

<b>markformpls</b>	Mark Andrew	Minneapolis mayoral candidate	NA	Political	Left	40
<b>boydhuppert</b>	Boyd Huppert	Reporter at KARE 11 TV	Public affairs	Incumbent media	Non	40
<b>eric_pusey</b>	Eric Pusey	Co-founder, MN Progressive Project	Public affairs	Blogger	Left	40
<b>3rdeyegirl</b>	Prince	Minneapolis-based national musician	NA	Entertainment	Non	39
<b>umdhumor</b>	University of Minnesota - Duluth	UMD humor page	NA	Higher Ed.	Non	39
<b>ricknelsonstrib</b>	Rick Nelson	Restaurant critic for the Minneapolis Star Tribune.	Entertainment	Incumbent media	Non	38
<b>mashalot</b>	Mashalot	Social shopping application for smart phones	NA	Business	Non	38
<b>frederickmelo</b>	Frederick Melo	Reporter covering St. Paul City Hall	Public affairs	Incumbent media	Non	38
<b>cathywurzer</b>	Cathy Wurzer	MPR morning edition host	Entertainment	Incumbent media	Non	37
<b>derushaj</b>	Jason Derusha	WCCO-TV Anchor/Reporter	Entertainment	Incumbent media	Non	37
<b>stribbiz</b>	Minneapolis Star Tribune - business	Business news from Star Tribune	Business	Incumbent media	Non	36
<b>spps_suptsilva</b>	Valeria Silva	Superintendent St. Paul schools	NA	Public official	Non	35
<b>vmontori</b>	Victor Montori	Medical doctor/researcher, activist	NA	Citizen	Non	35
<b>kerrimpr</b>	Kerri Miller	Host, Daily Circuit program, MPR	Entertainment	Incumbent media	Non	34
<b>Zite</b>	Zite	Automated news aggregator	General	Emergent	Non	34
<b>brendan_fischer</b>	Brendan Fischer	Counsel at Center for Media and Democracy	NA	Citizen	Non	34
<b>ameliarayno</b>	Amelia Rayno	NCAA basketball writer at the Star Tribune	Sports	Incumbent media	Non	34

<b>vsawkar</b>	Vineeta Sawkar	Video host, Star Tribune	General	Incumbent media	Non	33
<b>goldengophers</b>	U of MN sports	Univ. Minnesota sports news and notes	NA	Entertainment	Non	33
<b>minndata</b>	MinnPost	MinnPost interactive data service	Public affairs	Hybrid	Non	33
<b>1500espn_reuss e</b>	Patrick Reusse	Sports reporter	Sports	Incumbent media	Non	33
<b>stribprepsdavid</b>	David La Vaque	Covers high school sports for Star Tribune	Sports	Incumbent media	Non	33
<b>vikingsbuzztap</b>	Vikings buzztap	Automated Twitter aggregator of NFL news	Sports	Emergent	Non	33
<b>michelebachmann</b>	Michelle Bachmann	US House Rep	NA	Political	Right	32
<b>Ofa</b>	Organizing for action	Barack Obama's advocacy group	Political	Emergent	Left	31

Notably, in both Table 6.5 and 6.9, a category is labeled as “network gatekeeper types.” In my analysis of these two tables below, I explain how I conceptualized and arrived at these terms.

## 6.4b RESULTS OF DATASET 1, PART 2

In general terms, the Twitter users in the social network for Dataset 1 who have a high level of indegree centrality can be considered *among* the “influentials” or “network gatekeepers” in the distribution and conversation that is oriented around the reporting of current events news in the Twin Cities *by these news organizations and their employed journalists*. For instance, a network relation in this network might be a message from one citizen to one of his acquaintances containing a link to an article from Minnesota Public Radio about a story of mutual interest. Another relation might be a citizen directing a message at a journalist with a link to a news article and a question about it. A social

network analysis that can reveal the most central nodes in the overall flow of such kinds of interaction within a network of participatory journalism.

The identification of the individuals with the greatest centrality in the networked flow of information that includes links to Twin Cities-based news websites can be potentially important for a few reasons. For one, because these users can be understood as being among the networked gatekeepers in the networked gatekeeping process, understanding who they are tells us part of the story about the events or issues that are most likely to become or that are already news according to the overall network of interactivity at a given time. Further, finding these network gatekeepers gives us an idea of who some of the most influential people are for setting the local news agenda (McCombs and Shaw, 1972) and for maintaining the parameters of the sphere of legitimate controversy (Hallin, 1986) that Shoemaker and Reese (1991) long ago noted was a major role of traditional media gatekeepers.

In this collected social network, several things can be noted. Most significantly, and as expected, Twitter accounts for individual journalists and for organizational accounts that are affiliated with the 16 news organizations in this network are by far the most prevalent among the influentials in this network. 60 of the 100 vertices in this network are Twitter profiles affiliated with one of the 16 organizations whose URL domains were used to collect this network. Of these 60, eight of the profiles are affiliated with local news organizations that I call “hybrid” news organizations—organizations that

have developed their models of operation in an internet-mediated media environment but who have become established to some extent online. Thus, they are hybrids, in the grey area between traditional media organizations and the typical citizen blogger.

On the measure of political identification, I generally coded the journalists from incumbent mainstream local news outlets but also many of the emerging journalists as non-partisan network actors. This coding decision is based on the presumption that the objectivity norm mostly keeps modern professional journalists in the middle of the road within political debate. Thus, in my review of these influentials there are just eight profiles among the 100 profiles that I coded as being “Left” or liberal and three coded as “Right” or conservative. Thus, it is notable that the vast majority of the Top 100 influentials in this graph can be thought of as apolitical in their public Twitter presence—other than some politicians and a few activists, these influentials generally do not espouse a public political identity in the Twittersphere.

Beyond the 60 vertices affiliated with these news organizations in this dataset, there are a few other notable characteristics of this graph. For one, there are 17 sports journalists from incumbent media organizations, 13 non-sports entertainment-oriented journalists from incumbent media organizations, and ten other influential vertices outside of news organizations that are entertainment oriented. Thus, a full 40% of the influentials in this graph have a media role that is geared towards some kind of entertainment, a diversion from the function that is traditionally thought of as central for the media’s

purpose in democracy. These findings mirror the results from Dataset 2 in which half of the most followed Twitter handles affiliated with Twin Cities news organizations are sports oriented media workers.

There are other notable nodes in this social network, such as several users that are affiliated with the online news outlet MinnPost. MinnPost is an online only news outlet that was started in 2007 mostly by a group of Twin Cities-based journalists who had for various reasons left some of the large media organizations in the area. In Hindman's 2011 paper in which he found moderate concentration in the distribution of audience traffic for Twin Cities news outlets, the traffic to MinnPost that he discovered using comScore data was so low at that time as to be quantitatively undetectable. But here, with over 30 journalists with active accounts on Twitter and several accounts in the top 100 by indegree centrality, the rankings in Tables 6.1 and 6.2 reveal that MinnPost is above several incumbent news organizations in both raw URL links tweeted as well as in the indegree centrality of several MinnPost-affiliated Twitter handles.

## **6.5 DATASET 2: 2ND NEWS ORGANIZATION-CENTRIC NETWORK**

### **6.5a SOCIAL NETWORK WITH TOP 50 MOST FOLLOWED TWIN CITIES JOURNALISTS**

Dataset 2 comprises a social network of 50,573 social network ties among 18,106 nodes that derived from the following criteria for boundary specification: (1) I searched for and identified all—or as many as possible—of the Twitter profiles for Twin Cities journalists affiliated with 21 major news organizations of all kinds, including general news

outlets, public affairs news outlets, popular culture news outlets, and sports news outlets. In total, I identified 925 Twitter profiles affiliated with Twin Cities news organizations; (2) from this list of 925 Twitter profiles affiliated with Twin Cities news organizations, I identified the top 50 Twitter accounts based on total number of followers. The selection logic here was that I wanted to understand who the users are who are driving the most readers to news websites and thus, the most attention to a particular news organization's online brand; (3) I searched all reply and mention tweets in which one of these top 50 most followed Twitter accounts affiliated with established news organizations in the Twin Cities—for all tweets in which these 50 Twitter handles appeared followed journalism accounts were either the sender or receiver node; (4) all data was collected from the population of tweets posted to Twitter during an approximately two week period in the fall of 2013. **Table 6.6 restates and elaborates on the conditions and characteristics for constructing Dataset 1.**

*Table 6.6 - Data collection conditions for Dataset 2*

1	Data was collected from the Twitter social network site using NodeXL
2	Data was collected from the population of tweets from the Twitter Rest API posted to Twitter over a period of approximately 2 weeks during the fall of 2013
3	Data was collected through separate searches for the Twitter handle for the top 50 most followed Twitter handles that are affiliated with one of 30 news organizations in the Twin Cities including general interest news outlets, business news outlets, sports news outlets, and entertainment/lifestyle news outlets
4	Tweets were collected by searching for all reply and mention tweets that contain the Twitter handle name of each of these 50 Nodes most followed nodes from these news organizations
5	All data was compiled into a single social network



I identified this list of 925 Twitter Twin Cities journalistic accounts on Twitter through a search of the website [followerwonk.com](http://followerwonk.com), along with a crosscheck with a somewhat outdated Twitter list of Twin Cities journalists made by MinnPost journalist David Brauer (see <https://Twitter.com/dbrauer/lists/tcjournos>; <https://twitter.com/thomasernte/lists/twincitiesnewsprofiles>). Like Dataset 1, the nodes/vertices in this network are Twitter users who are either the “senders” or “receivers/sources” of replies or mentions in this network. Again, the actual reply or mention tweets between any two users represent the ties/edges in this social network.

### **6.5b RESULTS, DATASET 2**

Simply put, Dataset 2—comprised of the network of the top 50 most followed Twitter profiles amongst journalists working for news organizations in the Twin Cities—is dominated by a network of sports journalists and discussion around sports, especially local professional sports and some college sports. By my count, of the 925 total Twitter handles affiliated with Twin Cities news organizations, there are 126 that are either sports journalists or organizational accounts for Twin Cities news organizations. Of the top 50 of all Twin Cities news organizations, 25 are sports news accounts.

NodeXL can produce a list of “word pairs” for any social network which derive from some category that the researcher can choose. I programmed NodeXL to search all tweets to get the most frequently appearing word pairs in all tweets. Word pairs in this kind of social network operate as a rough representation of the most prominently featured topics

in the discussion within some specified network. **Table 6.7, then,** is a list of top word pairs derived from Dataset 2. These word pairs show that an overwhelming volume of discussion of local professional and college sports above all else is the major takeaway from these data.

One non-sports story to emerge in these word pairs appears as “stowed away” and “9 year old boy,” which alludes to the unusual local story that made national news recently of a 9 year-old boy who snuck onto a plane from Minneapolis to Las Vegas. Besides this story, all word pairs here are related to sports. Even one story that is technically not sports related, the death of an infant, is discussed because it is the death of the child of a player for the Minnesota Vikings, the professional football team in the Twin Cities. All told, discussion that can be quickly gathered from the tweet content in this graph indicates a focus around local sports, including Minnesota Vikings running back Adrian Peterson, discussion of University of Minnesota Gophers football coach Jerry Kill, and the signing of a new quarterback by the Minnesota Vikings, Josh Freeman.

This phenomenon of a sports-dominated social network given these boundaries for this social network is not merely a product of a network that is pre-specified by the inclusion of mostly highly followed sports profiles in a single network graph. Indeed, even in the word pairs and hashtags that are most prominent within the networks for single

Table 6.7 - Top word pairs from Dataset 2

Word 1	Word 2	Total	Word 1	Word 2	Count
1500	espn	1071	flight	went	241
peterson's	son	1065	went	airport	241
Espn	sportswire	1046	airport	2	241
Son	died	917	2	times	241
adrian	peterson's	880	times	earlier	240
Josh	freeman	798	official	startribune	240
chipscoggins	adrian	643	week	official	238
Died	according	621	breakingnews	boy	234
according	police	613	startribune	http	231
Year	old	509	u	s	229
Via	mprnews	490	freeman	vikings	227
Jerry	kill	386	adrian	peterson	221
Sad	chipscoggins	383	first	time	210
Via	pioneerpress	377	super	bowl	183
St	paul	373	check	out	178
adamscheffer	unspeakably	364	ryan	suter	171
unspeakably	sad	364	new	stadium	169
Twin	cities	339	russostrib	ryan	162
9	year	270	coach	jerry	155
wanted	clarify	264	suter	booed	149
training	camp	264	teammates	first	149
adrian	jr	261	time	touched	149
chipscoggins	wanted	258	touched	puck	149
Died	adrian	258	puck	skate	148
Jr	photos	258	booed	mnwild	146
photos	training	258	mnwild	teammates	146
clarify	everyone	257	skate	ready	146
everyone	peterson's	257	ready	ton	144
stowed	away	256	las	vegas	139
Right	now	253	via	startribune	136
Boy	9	250	kfan1003	cleansnap	135
9	stowed	242	ponder	cassel	124
earlier	week	241	peterson	jr	124
Away	minneapolis	241	fsnorth	kfan1003	123
minneapolis	flight	241	next	week	117

general interest news organizations such as the Minneapolis Star and Tribune, the St. Paul Pioneer Press, or a local TV station like WCCO in Minneapolis, sports discussion within Twitter overshadows other content in volume as sports journalism personalities tend to be the most prominently followed and “talked at” personalities on Twitter.

Finally, while I ideally would have collected a graph containing an edge for all of the reply or mention tweets from all 925 Twitter handles in the population of Twin Cities-based journalism profiles, there were two main reasons why I did not do this. For one, collection of data using this method with *NodeXL* is very cumbersome and prohibitively time-consuming. Secondly, it became clear during the data collection that discussion of sports would likely dominate such a social network. As such, a network made up of edges that represent all Twitter accounts connected to Twin Cities news organizations would be unlikely to produce enough research value for the significant time and effort that this would require.

## **6.6 DATASET 3: ISSUE-CENTERED SOCIAL NETWORK**

### **6.6a SOCIAL NETWORK FOR #MNLEG HASHTAG**

Dataset 3 comprises a social network made up of 2,521 vertices and 11,419 total network ties that derived from the following criteria for boundary specification: (1) all data was collected from the population of tweets posted to Twitter during an approximately three month period over the summer and fall of 2013; (2) tweets were collected that contain the Twitter hashtag, #mnleg. Of note, the #mnleg hashtag was

identified from data collected in Dataset 1 as the most widely used hashtag in that social network. Thus, this prominence of the #mnleg hashtag suggests that it has particular significance for the Twin Cities news ecology. Specifically, the #mnleg hashtag is a marker for discussion surrounding the Minnesota State Legislature. **Table 6.8 restates and elaborates on the conditions and characteristics for constructing Dataset 1.**

*Table 6.8 - Data collection conditions and characteristics of Dataset 3*

1	Data was collected from the Twitter social network site using NodeXL
2	Data was collected from the population of tweets from the Twitter Rest API posted to Twitter for most of the days over a period of approximately 3 months during the summer and fall of 2013
3	Data was collected through searches of the keyword #mnleg, which is also commonly referred to as
4	Tweets were collected by searching for all reply and mention tweets that contain the Twitter handle name of each of these 50 Nodes most followed nodes from these news organizations
6	All data was compiled into a single social network

As with Dataset 1, the nodes/vertices in the social network for Dataset 2 are Twitter users who are either the “sender” or “receiver/source” nodes of replies or mentions in this network of tweets containing the #mnleg hashtag. Also like Dataset 1, the actual reply or mention tweets between any two users here represent the ties/edges in this social network. **Table 6.9** provides some of the most significant data that is relevant for analyzing the event-centered network around the #mnleg hashtag.

*Table 6.9 - Top 100 nodes in Dataset 3 by indegree centrality*

<b>Nodes</b>	<b>Name of Person/Org.</b>	<b>Description</b>	<b>Network Gatekeeper type</b>	<b>Political leaning</b>	<b>Indegree Centrality</b>	<b>Followers</b>
<b>govmarkdayton</b>	Mark Dayton	MN Governor	Political	Left	200	19560
<b>mnsure</b>	MNSure Health	Gov't healthcare division	Political	Non	149	556
<b>andrewwagner</b>	Andrew Wagner	Communications Specialist, GOP	Political	Right	108	1407
<b>rachelsb</b>	Rachel Stassen-Berger	Star Tribune political reporter	Political	Non	92	7863
<b>mnhousegop</b>	MN House GOP Caucus	MN political organization	Political	Right	88	3128
<b>blakeffm</b>	Jonathon Blake	Freedom Foundation of Minnesota	Cit. rights	Right	85	1311
<b>startribune</b>	Minneapolis Star Tribune	Metro news organization	Incumbent media	Non	78	54685
<b>john_rouleau</b>	John Rouleau	Minnesota Majority, blog	Cit. rights	Right	77	890
<b>mlahammer</b>	Mary Lahammer,	TPT, Metro news organization	Incumbent media	Non	75	6162
<b>billglahn</b>	Bill Glahn	Businessman, political blogger	Cit. rights	Right	72	563
<b>shabbosgoy</b>	Peter Waldron	Former Bachmann Aide, wrote Bachmann expose	Cit. rights	Right	70	1549
<b>snienow</b>	Sean Nienow	MN Senator	Political	Right	66	1730
<b>mngop</b>	MN Republican Party	MN political organization	Political	Right	64	5027
<b>lukehellier</b>	Luke Hellier	Press Secretary for MN GOP	Political	Right	60	2291
<b>stribopinion</b>	Star Tribune Opinion section	Minneapolis Star Tribune division	Incumbent media	Non	57	3874

<b>oshakarow</b>	Osha Karow	Affiliation with OccupyMN	Cit. rights	Left	54	3,069
<b>mnaflcio</b>	MN Federation of Labor	Citizen rights organization	Cit. rights	Non	53	3671
<b>mprnews</b>	Minnesota Public Radio	Metro news organization	Incumbent media	Non	53	44554
<b>mattroznowski</b>	Matt Oznowski,	Communications Specialist, DFL	Political	Left	49	904
<b>patkessler</b>	Pat Kessler,	WCCO TV political reporter	Incumbent media	Non	47	18193
<b>carlymelin</b>	Carly Melin	MN State Rep	Political	Left	46	1696
<b>sallyjos</b>	Sally Jo Sorenson,	Rurual MN blogger	Cit. rights	Left	46	2584
<b>jvnord</b>	James Nord	Staff writer for @MinnPost	Hybrid media	Non	45	4462
<b>mnbeeractivists</b>	MN beer activists	Educating consumers of beer, etc..	Leisure	Non	45	975
<b>mnhousedfl</b>	Minnesota Democratic House Caucus	#BeerOnSunday #SundaySalesMN	Political	Left	44	4408
<b>stowydad</b>	Brian Bakst	MN-based A.P. journalist	Incumbent media	Non	43	4320
<b>mnsrc</b>	MN Senate Republican Caucus	MN political organization	Political	Right	42	3390
<b>repyanwinkler</b>	Ryan Winkler,	MN State Representative	Political	Left	42	3038
<b>epmurphy</b>	Eric Murphy	MN State Representative	Political	Left	41	3,390
<b>jdavnie</b>	Jim Davnie	MN State Representative	Political	Left	41	3203
<b>minnesotadfl</b>	Democratic Party of Minnesota.	MN political organization	Political	Left	40	7696
<b>abettermn</b>	Alliance for a Better Minnesota	Progressive advocacy org.	Cit. rights	Left	39	1178

<b>jruha</b>	Jeffrey Ruha	Political blogger, Democratic Social- ists of America	Cit. rights	Left	39	2031
<b>mikehowardmn</b>	Communica- tions Director, MN House DFL	MN political oper- ative	Political	Left	39	6571
<b>mn2020</b>	Minnesota 2020	Progressive think tank/blog	Hybrid me- dia	Left	39	5046
<b>pgless</b>	Peter Glessing	Communications Specialist, GOP	Political	Right	39	800
<b>patgarofalo</b>	Pat Garafalo	US House Rep	Political	Right	37	1489
<b>zrodvold</b>	Zach Rodvold	Director of Exter- nal Affairs for the MN House DFL Caucus.	Political	Left	37	2780
<b>bgolnik</b>	Ben Golnik	Public affairs/rela- tions strate- gist/Chair, MN jobs coalition	Political	Right	36	2898
<b>kenmartin73</b>	Ken Martin	Chair of the MN DFL	Political	Left	36	2755
<b>kstp</b>	KSTP TV	Metro news organ- ization	Incumbent media	Non	35	24,139
<b>occupymn</b>	Occupy Wallstreet - Minnesota	Political organiza- tion	Cit. rights	Left	35	10,709
<b>Tpt</b>	Twin Cities Public Televi- sion	Metro news organ- ization	Incumbent media	Non	34	4438
<b>uptakemn</b>	The UpTake	Metro news organ- ization	Hybrid me- dia	Left	34	7289
<b>alfranken</b>	Al Franken	US Senator	Political	Left	33	3455
<b>kdaudt</b>	Kurt Daudt	MN House Rep	Political	Left	33	665
<b>nickzerwas</b>	Nick Zerwas	MN State Rep	Political	Right	33	231
<b>repmaryfranson</b>	Mary Franson	MN State Rep	Political	Right	33	147884



<b>twoputtommy</b>	Tommy Johnson	Political blogger	Cit. rights	Left	33	3,536
<b>keithellison</b>	Keith Ellison	US House Rep	Political	Left	32	49,146
<b>johnlivreynolds</b>	John Reynolds	Citizen	Cit. rights	Right	31	6201
<b>mnhouseinfo</b>	Minnesota House of Reps' Public Information Services	MN government organization	Political	Non	31	232
<b>pioneerpress</b>	St. Paul PiPress	Metro news organization	Incumbent media	Non	31	31,356
<b>senatorbenson</b>	Michelle Benson	MN State Senator	Political	Right	30	1548
<b>bbierschbach</b>	Briana Bierschbach	Girl reporter for @PoliticsMN and the Capitol Report.	Cit. rights	Non	29	2390
<b>freedommn</b>	Freedom Foundation of Minnesota	Research org. that advocates limited government.	Cit. rights	Right	29	1531
<b>tptalmanac</b>	TPT Almanac	Metro news organization division	Incumbent media	Non	28	4665
<b>carrielucking</b>	Carrie Lucking	Executive Director - Alliance for a Better Minnesota	Cit. rights	Left	27	9864
<b>reperikpaulsen</b>	Erik Paulsen	MN House Rep	Political	Right	27	2131
<b>repjohnkline</b>	John Kline	MN House Rep	Pol	Right	26	9413
<b>senatordanhall</b>	Dan Hall	MN Senator	Pol	Right	26	9,402
<b>minnpost</b>	MinnPost	Online online news Twin Cities news org	Hybrid media	Non	25	26,567
<b>mn_chamber</b>	Minnesota Chamber of Commerce	MN's largest business advocacy org.	Business	Non	25	743
<b>mnjobscoalition</b>	MN Jobs Coalition	Political committee dedicated to job creation.	Cit. rights	Right	25	24292

<b>fedbullies</b>	#FedBullies	Blogger	Cit. rights	Right	24	95
<b>jpgkolb</b>	Jeff Kolb	Blogger.	Political	Right	24	514
<b>politicsmn</b>	Politics in Minnesota	A public affairs news service	Hybrid media	Non	24	1256
<b>richneumeister</b>	Rich Neumeister	Citizen interested in privacy, government, and information policy.	Cit. rights	Right	24	10808
<b>fivehenergy</b>	Dan Pollock	Staff for the MN House Democrats	Political	Left	23	453
<b>kent_eken</b>	Kent Eken	MN State Senator	Political	Left	23	305
<b>afscmemn5</b>	American Federation of State, County and Municipal Employees	Labor union	Cit. rights	Non	22	59
<b>bmcclung</b>	Brian McClung	Political PR specialist	Political	Right	22	428
<b>livingwagejobmn</b>	House Select Committee on Living Wage Jobs	Examines ways to improve benefits, wages and local jobs.	Cit. rights	Non	22	270
<b>takeactionmn</b>	Take Action MN	Working for racial/income equality	Cit. rights	Non	22	3202
<b>tjswift2</b>	Unknown	Unknown	Cit. rights	Right	22	735
<b>walterhudson</b>	Walter Hudson	Political commentator	Hybrid media	Right	22	3052
<b>amyklobuchar</b>	Amy Klobuchar	US Sentaor	Political	Left	21	25,956
<b>keithsdowney</b>	Keith Downey	Chaimna, MNGOP	Political	Left	21	1139
<b>larryrjacobs</b>	Larry Jacobs	Political science professor	Expert	Non	21	1763
<b>paulthissen</b>	Paul Thissen	MN State Rep	Political	Left	21	4,487

<b>wrip1m</b>	Women & Politics	Women's advocacy news outlet	Cit. rights	Left	21	1,076
<b>andypost1</b>	Andy Post	MN political operative	Political	Right	20	1541
<b>colbertreport</b>	Colbert Report	National news satire	Entertainment	Left	20	750,756
<b>mncapitol</b>	Minnesota State Capital	Handles tours/history of capital	Political	Non	20	384
<b>reptonyalbright</b>	Tony Albright	MN House Rep	Political	Right	20	441
<b>sclosmore</b>	Susan Closmore	MN political operative	Political	Right	20	1600
<b>5percentmn</b>	5 percent MN	MN citizen rights group seeking 5% rate increase for home and community based services in 2014.	Cit. rights	Non	19	725
<b>educationmn</b>	Education MN	Teachers union	Cit. rights	Non	19	831
<b>henrycorp</b>	The Other 98%	Watchdog group on gov't/corporate corruption	Cit. rights	Left	19	1293
<b>rcchamberlain1</b>	Roger Chamberlain	MN State Senator	Business	Right	19	604
<b>wbgleason</b>	Bill Gleason	Chemist, teacher, scholarly researcher	Expert	Left	19	8137
<b>wgybmovie</b>	Film: Operation S.W.E.E.T. X-mas	A #Hollywood #Comedy #Movie Military veterans	Leisure	Non	19	85
<b>bettymccollum04</b>	Betty McCollum	MN	Political	Left	18	3,935
<b>bspinmn</b>	Bluestem Prairie blog	Progressive rural blog	Cit. rights	Left	18	2055
<b>ctiedeman</b>	Chris Tiedman	Political and Public Affairs Consultant	Political	Right	18	995
<b>dc4dfl</b>	Douglas County Democratic Party Division	Political organization	Political	Left	18	512

<b>eric_pusey</b>	Eric Pusey	Poitical commen- tator for MN Pro- gressive Project	Hybrid me- dia	Left	18	1888
<b>kurtzellermn</b>	Kurt Zellars	MN House Rep	Political	Right	18	4161
<b>occupywallst</b>	Occupy Wallstreet - National	News and Info about OWS	Cit. rights	Left	18	3717
<b>scotthonourmn</b>	Scott Honour	Gubanatorial can- didate, Business owner	Political	Right	18	1209
<b>sturdevant</b>	Lori Sturdevant	Star Tribune edito- rialist	Incumbent media	Non	18	1951
<b>willmorgan84</b>	Will Morgan	MN State Rep	Political	Left	18	1075

### 6.6b RESULTS OF DATASET 3

This dataset is set up mainly to address Research Question 2, which is the question of whether an event-centered social network will, compared to a news organization-centric network, have a greater diversity of network gatekeeper types. A highly varied mix of people and organizations are featured as influentials in the social network for Dataset 3. In this network of 2,520 total vertices, the 100 top users by indegree centrality are just 4% of the total users in this network. And yet these 100 users collectively are the receivers of more than 50% (51.6%) of the total mentions and replies. Furthermore, it is noted that just 10 % of the users in this network (the top 250 users by indegree centrality) are on the receiving end of 74% of the reply and mention tweets. These properties are indicative of a power law distribution in which a relatively small number of users in the network are the objects of a vast majority of the replies and

mentions.

One notable feature of this social network is the balance of politically aligned users among the influentials. Political orientation was determined either by virtue of users' self-identification with a political party on their Twitter profiles, through a Google search of official webpages of various users, or through observation of political slant of the actor's actual tweets. 38 of these top 100 influentials were coded as having a liberal or "left-leaning" political point of view, 35 were coded as having a conservative or "right-leaning" political point of view, and 25 were coded as having no political affiliation. Overall, the liberals and conservatives have virtually the same collective indegree centrality scores (1355 and 1375, respectively), while nonpartisan users are not far behind with a collective indegree centrality score of 1,185. These figures indicate that alongside the politically driven conversation on Twitter there is a significant influence from network actors that have no clear political agenda.

39 of the 100 users among the influentials in Dataset 3 are political leaders, political party offices, or communication specialists who work for political parties. Further, Twitter users affiliated with political parties are very prominent in this network, taking up nearly half—49--of the spots on this list. Given that the hashtag is #mnleg and thus refers specifically to issues relevant to the Minnesota State Legislature, it is not surprising that this network would feature so many politicians.

Meanwhile, just 11 of these vertices are from incumbent media organizations, a

highly significant drop from Dataset 1. Twenty-eight nodes that I coded as “citizen rights” network actors also appeared in the network. I defined these as any individuals or groups whose interest it is to advocate for non-elites, whether that be as bloggers, labor or teachers’ unions, or activists. Finally, very few entertainment accounts appeared here, an indicator that hashtags like this political hashtag #mnleg are part of a framing process such in which Twitter users who employ this hashtag generally stay faithfully on message.

Further, Twitter handles affiliated with political parties are very prominent in this network, taking up nearly half—49--of the spots on this list. Given that the hashtag is #mnleg and thus refers specifically to issues relevant to the Minnesota State Legislature, it is not surprising that this network would feature so many politicians. Notably, 23 of the politicians’ accounts are identified as conservative while 22 are liberal and 4 neutral. Liberal and conservative leaning politicians have nearly comparable collective indegree centrality scores as well, with collective indegree centrality scores of 876 for the liberal politicians and 1167 for the conservative politicians, indicating slightly more discussion around the #mnleg hashtag by conservatives.

In both Table 6.5 for Dataset 1 and Table 6.9 for Dataset 3, I have a category I call “network gatekeeper type.” I based the categories for the different network gatekeeper types in part on a taxonomy suggested by Meraz and Papacharissi (2013) in their “networked gatekeeping” study about the flow of information on social media during the

Arab Spring in 2011 around the #Egypt hashtag. In that study, they categorized different influentials in the social network, with some they categorized as falling into an “elite” category and some falling into a “non-elite” category.

My similar categories as theirs include mass media institution (e.g., @startribune), mass media journalist (e.g., @RachelSB; aka Star Tribune political journalist Rachel Stassen-Berger), blogger (e.g., @eric\_pusey; aka Eric Pusey, blogger for the Minnesota Progressive Project), activist (e.g., @paperrev – a Minneapolis-based group affiliated with Occupy Wall Street), digerati (e.g., ExiledSurfer), citizen journalist (e.g., @Zenibia), new media (e.g., @Digg), celebrity (e.g., Minnesota Vikings professional football player Adrian Peterson), organization (e.g., @mayoclinic; aka Mayo Clinic), politician (e.g., @RTRYbak; aka Minneapolis Mayor RT Rybak), and researcher (e.g., @Shadihamid).

Like Meraz and Papacharissi, I was initially interested in understanding the distribution of elite and non-elite influence within the network gatekeeping process. In the category of “nonelite influence,” they put bloggers, activists, “digerati,” and citizen journalists. In the elite influence category, they had mass media institutions, mass media journalists, new media, celebrities, internet bots, organizations, politicians, and researchers.

But a potential problem with these categories suggested by Meraz and Papacharissi for the present study comes in trying to distinguish “new media” and

“bloggers” as either elites or non-elites. One example they use for an elite new media Twitter account is @Digg, the Twitter handle for the networked social media and news aggregator at [www.digg.com](http://www.digg.com). It is notable that the content on Digg, however, is driven by a network-based algorithm that measures votes by nonelites as to which content on Digg is prominent. Digg, in short, is a somewhat of a combination of elite and nonelite source.

A related conflict comes up when considering a blogger such as Eric Pusey from the Minnesota Progressive Project. Pusey appears as an influential in both Dataset 1 and Dataset 3, suggesting that he is influential in the discussion around the political hashtag #mnleg just as he is influential in the flow of messages that come from Twin Cities-based news organizations. The Minnesota Progressive Project identifies as a blog—blogs started by small groups of individuals have generally been considered non-elite in popular and scholarly discussions of the media. But as time goes on, do some bloggers become elites? One could argue that any blog could represent a “Fifth Estate,” a sort of new branch of media that serves largely as a check on the traditional “Fourth Estate” media organizations. But should we think of media workers from this Fifth Estate as surrogates or agents of the public, or are they a new kind of elites? Or are they a little of both?

It is clear from a comparison of Datasets 1 and 3 that there is a greater diversity of network gatekeeper types who are influential within event/issue centered networks—to



some extent this was expected as this phenomena is largely a product of the different choices for boundary specification. Still, this comparison illustrates an important point—that the networked gatekeeping process as it revolves around news instead of around news organizations is comprised of a greater assortment of public sphere types. What is not clear, however, is whether these different types of influentials should be seen as any less “elite” than incumbent mass media organizations or journalists affiliated who work for them. These questions can and should be the subject of future research. In my discussion below of Daniel Hallin’s (1986) spheres of influence on media content, I discuss the possible implications of these questions further.

#### **6.6c SOCIAL NETWORK VISUALIZATION OF DATASET 3, #MNLEG HASHTAG**

*NodeXL* offers a variety of different automated methods for producing a social network visualization of any of the social networks in this study. One method is the Clauset-Newman-Moore algorithm (see Himelboim, Smith, and Schneiderman, 2013 for more information about using this method in NodeXL) in which the graph automatically attempts to put users into “groups” or clusters with other users that the program determines are “close” in a social network sense. As Himelboim, et al. write, this reflects a consistent pattern in social networks in which the most prominent network actors tend to fall into a few relatively large “modules” which are essentially clusters of users that are calculated as being in relatively close and frequent contact with one another, contact that makes them somewhat isolated from other clusters by what Burt (1992) called “structural

holes” in the network.. One of the ways that this visualization method has been used is to look for signs of polarization in public communication.

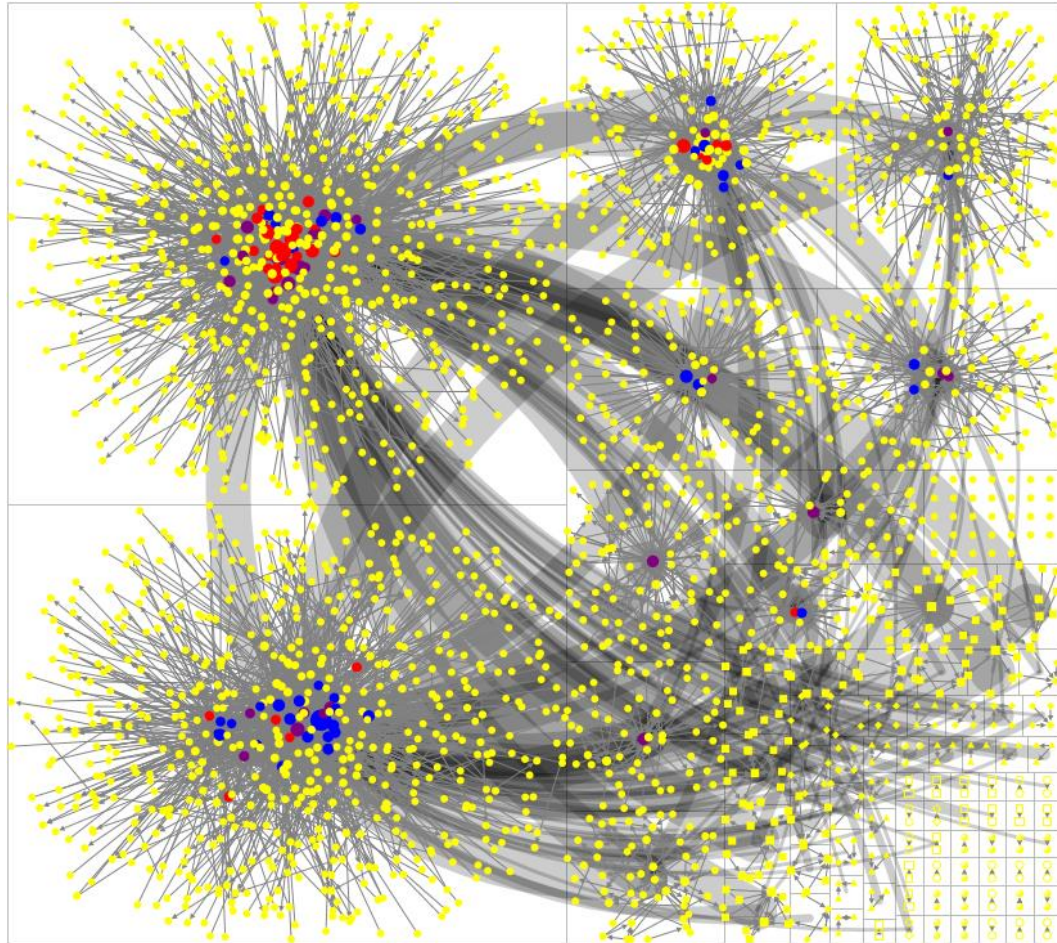
For Dataset 3, the #mnleg social network, I coded each of the Top 100 politically rightwing oriented nodes as red dots and each of the politically left-oriented nodes with blue dots. In addition, I coded any politically neutral nodes among the top 100 to be visually represented as purple dots. All of the 2000 plus nodes outside of the top 100 are illustrated as yellow dots.<sup>3</sup> **Figure 6.2** is the visualization of this social network based on this coding scheme.

The data size of just 100 coded hubs for this visualization is limited for explanatory purposes. However, given this limited data, it does appear that many of the right wing vertices are clustered together in the top left group while many of the left wing vertices are clustered together in group on the bottom left. This indicates that more frequent communication via Twitter (through both replies and mentions) tends to occur among people with the same political persuasion. However, given that there is some red and blue nodes in each of the largest groups in this network, this indicates that there is at least some discussion across political divisions. Further, given that there are purple—or

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<sup>3</sup> These colors will not appear in any black and white reproductions of this dissertation

*Figure 6.2 - Social network visualization of #mnleg hashtag*



Red - conservative-leaning nodes among top 100 by indegree centrality

Blue – liberal-leaning nodes among top 100 by indegree centrality

Purple – neutral nodes among top 100 by indegree centrality

Yellow – nodes outside the top 100 by indegree centrality<sup>4</sup>

\*The Clauset-Newman-Moore algorithm separates the largest network clusters into modules that appear on the top and left three quadrants of the graph. This algorithm groups all of the other nodes that are not cohesively clustered into small groups on the bottom right quadrant. For the purposes for making a clean visualization, the algorithm may cut out some of the 2,000+ nodes that are not within the larger modules.

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<sup>4</sup> These colors will not appear in any black and white reproductions of this dissertation. The module with the cluster of mostly red nodes is on the top left; the module with the cluster of blue nodes is on the bottom left.

non-partisan—nodes in both primary groups and outside of them (mostly journalists or other general information nodes), there may be reason to think that these non-partisan nodes are acting as boundary spanning individuals. That is, these could be the kind of individuals whose presence spans “structural holes” (Burt, 1992) in between otherwise disconnected groups of users.

## CHAPTER 7. DISCUSSION

### 7.1 BY THE NUMBERS

Several overarching ideas can be gleaned from this study. For one, all of the social networks in this study had small world features. For instance, the average geodesic distance (average degrees of separation between all nodes in the graphs) for each social network is all less than 5 total degrees of separation, as shown in **Table 7.1**. Even the

*Figure 7.1 - Structural properties of datasets 1-3*

Dataset	Average geodesic distance	Maximum geodesic distance	Graph Density
1	4.56	15	0.000039976
2	3.804	9	0.000112227
3	3.796	10	0.001199606

maximum geodesic distance (most number of “hops” between any two nodes in these social networks) is no greater than 15 among these networks. Of note, because Twitter’s strict rate limits on data collection do not allow for the efficient collection of the follower networks for the nodes in these networks, these geodesic distances do not take into consideration that the density of the actual follower graphs of these nodes is most certainly more dense than their actual communication-based network. This is because we know that the communication between these users is mostly based on communication

between people for which there is at least a one-way follower relation in place. As such, from this we can deduce that within these networks news can be passed along to almost anyone in the network within a very small number of hops.

Another characteristic of these social networks is the property in which many of the nodes with low centrality, the “peripherals,” tend to have relatively high cohesiveness with other nodes and relatively high levels of edge reciprocation. While these nodes with high network cohesiveness may not be part of cliques, their high cohesiveness and low centrality suggests that they are part of the marginal network entities in the long tail of the power law distribution of networked communication around these news organizations and topics.

## **7.2 CHOOSING CONCEPTUALLY APPROPRIATE CENTRALITY METRICS**

One important question for the social network analyses conducted for this paper pertains to the issue of selecting appropriate centrality metrics for a particular study. Like the suggestion by Borgatti and Halgin (2011) that boundary specification consideration should come from conceptual considerations that are relevant to particular research problem, the choice of one or more appropriate centrality metrics for a given study is also a decision that should derive from particular considerations of the research and types of networks in question. Freeman (1980) developed a centrality metric that he called *betweenness centrality* that he suggested was analogous to the gatekeeper concept within a social network. Borgatti and Everett (2006) have recently described Freeman’s

betweenness centrality metric as “the number of times that any actor needs a given actor to reach any other actor” (p. 474). Knoke and Yang (2008) provide another definition, writing that “the betweenness concept of centrality concerns how other actors control or mediate the relations between dyads that are not directly connected” (p. 67). The concept behind betweenness centrality, then, is that network actors with high betweenness centrality operate as intermediaries or brokers in a network—that they may have a particular power to bring together groups that are otherwise somewhat isolated from one another by structural holes (Burt, 1992). This concept seems to be a potentially good fit for the kind of position that an effective journalist might occupy within a social network that has somewhat isolated clusters.

However, Freeman developed betweenness centrality for undirected networks—networks in which ties are inherently bidirectional. But because actual communication on a social network site such as Twitter is inherently directed (some communication between nodes is not reciprocated), Freeman’s original calculation for betweenness in an undirected network does not apply to directed networks. White and Borgatti (1994) have suggested possible mathematical means for calculating betweenness centrality for directed networks. However, NodeXL uses betweenness calculators developed by the Stanford Network Analysis Project (SNAP) which automatically calculate betweenness centrality based on the assumption that the network under study is undirected. As of this study, it is not known if there is a way to calculate a betweenness centrality metric that

accounts for the one-way nature of ties that characterize directed networks.

To understand the problem with using betweenness centrality for a directed network, we can consider a case in the #mnleg network, Dataset 3. One Twitter user who is revealed by NodeXL to have very high betweenness centrality in this network is a user based in Minneapolis named @paperrev (Paper Revolution) who identifies as a representative of the Occupy Wall Street movement. But a look at the full data for this network reveals that @paperrev is what one might call an “expansive” or a loud mouth—a person who interacts to a lot of people in the network but who receives no reciprocal communication. That is, he or she has very high outdegree centrality but zero indegree centrality. With the way NodeXL calculates betweenness centrality, this network actor would be quite high on betweenness centrality because NodeXL’s betweenness metric effectively sees outdegree and indegree ties as undirected ties. But does it make sense that @paperrev should be called a kind of broker in a network in which he receives no communication? Clearly not—he would not be on the shortest paths between any of the users in the network. This problem indicates, then, the inherent fallacy in using and interpreting the betweenness centrality measurement used by NodeXL for the study of a directed network.

As such, it was determined that the best available metric to use to calculate centrality in these networks is indegree centrality—a calculation of the number of times an actor is the receiver of a mentions or replies tweet. Given that a high indegree



centrality score for an actor indicates that lots of people are aware of, communicating with, or “retweeting” the comments of his actor, indegree centrality proves a useful metric for indicating the centrality and/or influence of a given node.

### **7.3 EVENT/ISSUE-CENTERED JOURNALISM**

Recently, in a move that surprised many observers of both the news media and the technology industry, the CEO of Amazon.com Jeff Bezos purchased the *Washington Post*. The Post, given its location in the nation’s capital and its longstanding history for reporting some of the most significant US news stories of the last century, arguably stands alongside the New York Times as the two most important newspapers in the United States and certainly the Post is one of the most important news outlets around the world. In a recent article called “Newspapers Should Be More Like Amazon,” former FCC Chairman Julius Genachowski along with media scholar Steven Waldman wrote the following about the evolving media environment and the place of public affairs journalism within it:

Newspapers, like TV stations, never got away from the artificial boundaries drawn by their distribution technologies: for newspapers, the reach of their physical distribution; for broadcasters, the reach of their antennas. Now they can imagine distribution patterns focused on topic or audience rather than just geography (para. 6).

This point by Genachowski and Waldman that the news must be more audience focused and focused on events, and that it should break out of traditionally drawn boundaries for what news organizations should cover, represents a part of what it means

for journalists and journalism organizations to do journalism as a networked process. Indeed, this idea hits directly at the heart of how the media system is changing and how media professionals, scholars, and citizens should think differently about it. As I showed with my first Dataset, a news-organization centered news ecology biases the position of traditional incumbents in a position at the center of the media system. On their own, these data are compelling from a strategic point of view for these news organizations in that they provide some evidence which informs media organizations which of their organizational Twitter handles, which of their journalists, and who are some of the non-journalists who are influential as the most instrumental drivers of audience attention to their content.

Conceptually, however, a view of the media system which conceives of news organizations as being the only centers of the networked gatekeeping process would be a continuation of the insistence by journalism professionals to “normalize” (Singer, 2005) the new media rather than to adapt. Their normalization worked for traditional news organizations as long as the public was still relatively atomized even for the first decade plus of the internet’s diffusion. But with the rise of social network sites and other more advanced Web 2.0 technologies (O’Reilly, 2004), it seems that the way that users can connect now allows for news to more naturally revolve around events and issues and not around mass media platforms.

In a media environment in which the journalism profession is being pushed at its

boundaries by various types of emerging journalists, a vital part of dealing with those blurred boundaries involves eschewing any conception of being in control and embracing the role of what Sunstein calls (2011) “general interest intermediaries.” A practical means of going about recognizing that loss of control is to seek out information about topics that have emerged organically within the networked media environment and not necessarily starting with news reports from traditional news organizations. Reporting about such events, often with ad hoc citizen participants in the gathering and reporting processes, can make the news by journalists more interesting and relevant to the public. In some cases, for some reporters this may mean moving beyond traditional objectivity expectations and instead being more open and honest even if that means stepping away from a traditional “view from nowhere.” As Rosen (2013) puts it, some journalists may practice within a “politics none” model and others (such as Glenn Greenwald) may practice with a “politics some” model. Neither method is wrong. But to some degree, journalists won’t change themselves. Journalism will change over time as young people who understand the technology better than their parents will better understand how to adapt to these technologies.

One important component for staying relevant in a modern media environment, then, will involve journalists being aware of the public and other non-journalists as participants in a networked gatekeeping process. As such, a news organization or individual media workers could get great benefits from at the very least getting a basic

one-time picture of who the various “influential” or “networked gatekeepers” are in the networks that might revolve around various topics of interest. In my casual observation of Twitter, many journalists did not seem to engage in the use of hashtags. However, perhaps hashtags could become significant for use in identifying networks of discussion around certain topics. That said, it is also important to find creative ways to specify social network boundaries for social network analyses using topics that may not be part of hashtag-based networks. That is, specifying a social network based on keywords for certain topics might be apt to better capture organic, un-framed conversation rather than the kind of framed conversation that is expected to appear in hashtag-centered networks.

It could further be useful for journalists and news organizations to engage in ongoing tracking of relevant networks of conversation that some modern social network analysis tools can offer. Given the rise of what is now being called “data journalism” which involves any imaginable use of computer technology to tell the news, it would seem that news organization could benefit especially from bringing network analysis software into their data reporting toolkits. The NodeXL software used in this study offers a relatively easy to use methodological toolkit that journalism organizations could implement as a storytelling aide for identifying new events that they can and should report. Given that Twitter, Google, and other internet-based news and information portals are structured as social networks, it seems imperative that emerging media organizations increasingly understand network structure.

It's worth remembering here that when Lewin (1947) conceived of his field theory and the idea of gatekeepers, his motivation was to find a way to influence people to make particular decisions and develop certain habits. In his case, one of his major findings was that housewives were in a position as "gatekeepers" for a family when it comes to buying food. As such, he found that housewives could significantly influence the food consumption habits of her family. This finding was important for the war effort during World War II when there were food shortages. It was determined through this research that persuasive messaging to encourage thoughtful decisions on food consumption should be directed primarily at housewives.

In a related way, a news organization today looking to be relevant for modern media consumers should fully recognize and take advantage of just what it means that the news they produce can be "retweeted" or otherwise shared by people not affiliated with their news organization. Thus is, these media organizations should view the multitudes of network actors in a social network as their partners in news distribution and discussion around their news. News organizations and journalists looking to be relevant within such a media environment should look to identify other "network gatekeepers" that have local relevance and interest in their news content. These other network gatekeepers might be considered as something like vessels through which news can and will be distributed. But this cannot happen through forced or faked means. It requires engagement between the influential within the network, an ongoing acknowledgement by journalists that they

now share the major places of influence in the gatekeeping process alongside non-journalists or non-traditional journalists.

#### **7.4 THE JOURNALISTIC VIEW OF DEMOCRACY**

Another important part of understanding the changing media environment is to recognize the point made in various ways by scholars like Schudson (1998) and Gans (1998) that information and journalists are not, as it is sometimes claimed, at the center of democracy. New technologies that have nothing to do with the traditional press system have developed and, in the process, the economic model for the incumbent media system has been severely degraded. And yet as Schudson (2008) suggests, it could be that the greatest changes for society could happen only outside of the media such that citizen-driven kinds of journalism can have a significant and sustainable influence on the gatekeeping process.

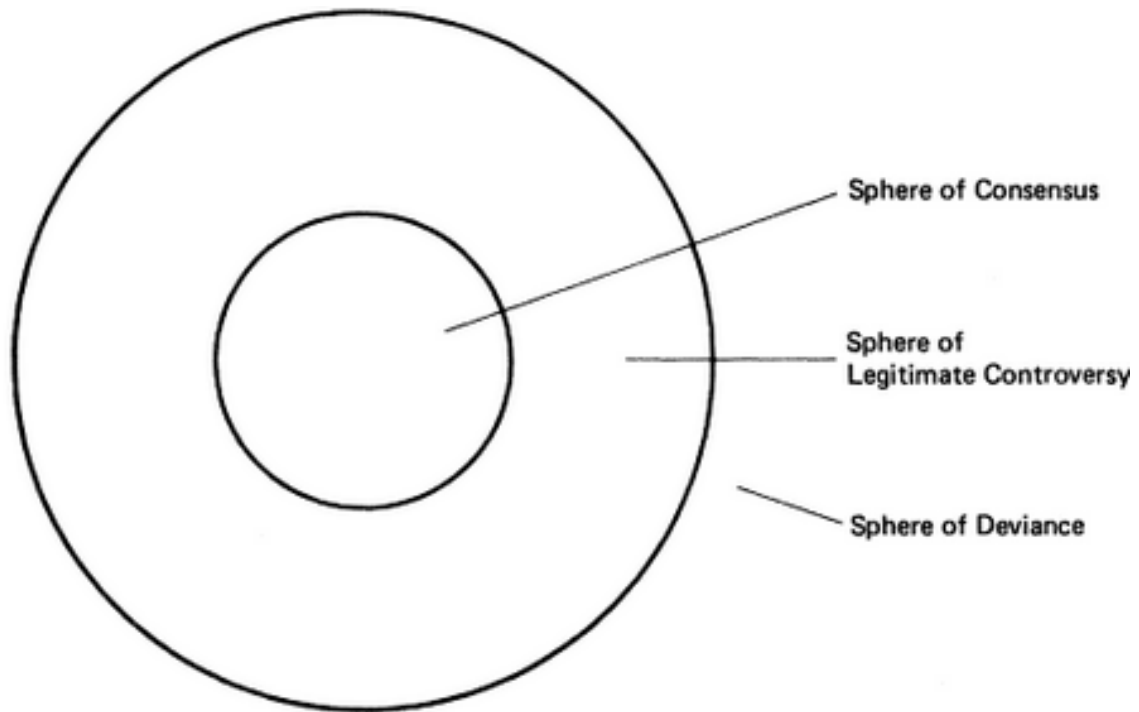
According to a sociology of professions perspective of journalism, the journalism profession can currently be viewed as going through a period of significant struggle at the boundaries that define what counts as journalism. The development of the internet and its associated technologies are primarily responsible for opening up a once essentially closed system of media in which journalists—through their affiliation with a relatively scarce number of major media outlets—had control over deciding the news that would reach the public. To the extent that the general nature of media reporting was relatively consistent across mass media outlets in the 20<sup>th</sup> century media model, this was due to a set of

influences on the content of described within Shoemaker and Reese's (1996) hierarchy of influences model.

According to political scientist Daniel Hallin (1986), it is through the various sociological influences inside and outside of journalism organizations that there have long been ideological boundaries for the kinds of issues and perspectives that could be discussed within the news media. Objectivity and balance within journalism practice, Hallin suggests, result in boundaries for a “sphere of legitimate controversy”—“the region of electoral contests and legislative debates, of issues recognized as such by the major established actors of the American political process” (p. 116). Outside of the sphere of legitimate controversy is the “sphere of deviance”—the people and ideas that would generally not be included in mainstream news coverage (see **Figure 7.1** for a visual depiction of Hallin's spheres).

According to media scholar Jay Rosen (2009), one important development during the evolution of an internet-based media environment has been an expansion of the sphere of legitimate controversy. This is in large part, Rosen says, because the formerly atomized, passive audiences that had unidirectional communication ties to media of the public sphere in the 20<sup>th</sup> century media model now have the potential for two-way public communication ties between anyone in the world. As Rosen puts it, because of “the falling cost for like-minded people to locate each other, share information, trade impressions and realize their number,” there has been a trend to “to establish that the

Figure 7.2 - Hallin's (1986) spheres



From: Hallin, D. (1986). *The uncensored war: The media and Vietnam*. Berkeley, CA: University of California Press.

‘sphere of legitimate debate’ as defined by journalists doesn’t match up with their own definition” (para. 19).

## 7.5 SPORTS JOURNALISM ON TWITTER

One of the basic findings from both Dataset 1 and Dataset 2 was the relative prevalence of sports and/or entertainment journalists in the conversation on Twitter compared to other types of journalists. Perhaps it has always been this way that sports news has been a major part of the draw by audiences for traditional news organizations. But it becomes very clear through the observable flow of information on Twitter that



sports and more generally entertainment-based news and conversation is highly instrumental in attracting attention to the websites from major news organizations. This finding has a variety of potential implications for our analysis of the overall Twin Cities news ecology, which I will discuss in a series of sections.

### **7.5a SPORTS AND THE SPHERE OF CONSENSUS**

Robert Putnam (2001) saw the decline of participation in group social activities in the latter half of the 20<sup>th</sup> century as a strong indicator of decline social capital in society. Further, Putnam fretted that the internet might become a tool for entertainment more than a tool for becoming engaged in the “serious” news that is considered directly relevant to our capacity for engagement in democracy. But Schudson (2006) problematizes Putnam’s premise, suggesting that Putnam’s view that only certain kinds of social activity can be considered valid embodiments of social capital fails to account for the “varieties of civic experience” that can be understood to count as meaningful.

In another article, Schudson (2001) notes that the discussion of local sports teams lies inside of the sphere of consensus (Hallin, 1986) such that nearly everybody with an interest in sports at the local level are in general agreement about their feelings of attachment to their home team. Beyond the basic enjoyment that people get from sports then, perhaps one explanation for the intense discussion around sports on Twitter compared to other kinds of media is likely that this consensus of feelings around local sports teams provides a sort of social lubricant that may engender discussion among

diverse individuals. In other words, sports are easy to talk about with people compared to other topics that might have more divisiveness, including politics. In this sense then, this discussion of sports, especially local sports teams, could facilitate conversation across barriers that may have a tendency to block conversation about other topics. Perhaps the common recommendation not to discuss politics and religion at the dinner table is at least partly true on social media as well. That is, people often avoid discussion about these controversial topics because it highlights their differences from others or can turn negative. If discussion of charged political issues such as abortion rights or gay marriage rights are wedge issues that tend to breed polarization of social discussion, perhaps topics like the local sports teams are the issues that help to preserve some basic cohesiveness in our social structure

Moreover, the common notion that sports represents mere frivolous activity should be questioned. This is not to say that engagement with sports replaces being informed for making voting decisions about elected officials or being civically engaged with one's community. Rather, for one, understanding that sports and other leisure activities represent an important part of life for the modern citizen recognizes points made by Schudson (1998) that modern citizenship and democracy can work reasonably well with "monitorial citizens" who are generally not fully informed about many current political events but who are nevertheless aware enough to become engaged when some issue of interest for them arises. These monitorial citizens, it would seem, could be the

kinds of people who often read the news to hear about their local sports teams but who also scan the other sections of the news as well. Given that a social network site like Twitter allows users to see sports news and public affairs news streaming alongside one another, it is in this way that we can see Twitter as an awareness system working reasonably well for democracy with many monitorial news observers. Twitter, in a sense, can enable a kind of serendipity or incidental exposure to news that a reader may not have otherwise seen were it not for his interest in some other kind of content. Further, the data telling us that engagement with sports journalists is high also tells us that many people are likely being exposed to the public affairs news that comes across their Twitter feeds but perhaps people are less likely to directly actively engage with this hard news compared to the soft news.

Furthermore, whether it is sports journalism, business journalism, political journalism, pop culture journalism, or some other kind of journalism, it can all have value not only for a media organization but also for the public. As Schudson (2008a) puts it:

The press should be understood as multiform and multipurpose, a mixed-bag of an institution. There is nothing pure or refined about it. It is the same organization that sells consumers investigative reporting, the weather, recipes, and crossword puzzles in a single daily bundle. It is the same organization that may take great pains in one section to be even-handed and detached, say, in covering candidates for political office, and in another section cover the local sports team with partisan fervor and, when the team is winning, evident glee. And I am still talking about a single news product, not the differences among news organizations that may conceive their tasks in quite different ways from one another (p. 8).

### **7.5b SPORTS JOURNALISM: THE “TENT POLES” OF TODAY’S JOURNALISM INDUSTRY?**

In the film industry, it has long been understood that certain blockbuster films are the “tent-poles” for movie studios. These are the films that are expected to make a lot of money for the studio to pick up the slack for other smaller films which, while possibly more attractive to critics and more niche audiences, will make little to no money. Thus, in the metaphor, these kinds of blockbuster films are the tent poles that hold up the tent for the entire film company, allowing movie studios to fund smaller project that would be buried under the tent without the larger films. In the news industry, it is probably not a surprise to media organizations that sports journalism is driving traffic around their brands. But the Twitter data showing a lot of popularity for sports content means that this kind of entertainment news can be understood as at the very least a kind of tent-pole for the investigative and public affairs journalism that inform the public about sometimes serious issues for engagement in democracy.

Sports journalists have some advantages that other kinds of journalists do not have that makes them popular. For one, sports journalists tend to have access to official sources within major athletics organizations. Compared to other kinds of journalists, this exclusivity of access to players and other officials from major sports teams preserves their place in a position of greater control over information than most journalists have today. Indeed, in many cases, local athletes, coaches, or other officials from sports organizations use the local media as a form of public relations vehicle that is part of the tacit agreement that grants sports journalists exclusivity of access. In addition, as

Schudson (2008a) writes, local sport journalists have a freedom from objectivity that derives from the reality that discussion of their team falls within the sphere of consensus.

### **7.5c NEWS BEATS AND THE POWER LAW DISTRIBUTION**

In Hindman's (2011) study of the news ecologies of the top 100 largest metropolitan areas in the United States, he found a moderately concentrated distribution of audience traffic across all websites for news organizations in the Twin Cities metropolitan area. Although Hindman does not reveal in his study which news organizations from the Twin Cities were included in his study, he does mention that he included 20 news outlets from the Twin Cities in his study that he said had at least a 1% market share of audience exposure. By my count, however, a comparison across 20 news organizations is inherently problematic in that there does not seem to be even 10 news organizations in the Twin Cities that attempt to do all major forms of news including public affairs news, business news, sports news, entertainment/leisure news.

The Twin Cities Business Journal, for instance, would likely have above 1% market share among all news organizations in the Twin Cities metro area and thus, it would be included in Hindman's study of local news organizations. But does it make sense to compare the audience traffic of such niche news organizations with that of the Star Tribune, as Hindman's metric apparently implicitly does? The data which shows that some organizations in the Twin Cities and likely other cities get a lot of audience interest through their entertainment content suggests that categorizing both the Star

Tribune and Fox Sports North as the same kinds of news organizations is problematic from a measurement standpoint. It is presumed that across Hindman's study of the exposure diversity for the top 100 DMAs in the United States, he included all general interest and niche interest local news organizations in his study of the exposure diversity of local news overall. This measurement choice seems questionable given the clear differences in the target audiences of general news versus niche news publications.

## **7.6 MORE ON THE POWER LAW OF EXPOSURE TO ONLINE MEDIA OUTLETS**

Political scientist Matthew Hindman (2009; 2011) has found compelling data showing that online audience use of media outlets follows a power law distribution. Traditional metrics that media regulators have used for determining whether or not there is unhealthy market concentration suggest that developments during the ongoing evolution of the internet are worsening the concentration of audience attention. The current research study, however, identifies several problems with this thesis.

First, Hindman begins with a baseline that focuses almost exclusively on audience exposure concentration online as a one-dimensional problem and finds the current level to be inadequate. He does not go so far as to say that the evolving media environment is making things worse for democracy but he does suggest that the filtering effects of media aggregators and other phenomena are essentially having the effect of reinforcing elite power. His data is clear—network structures (not to mention human-developed algorithms) perpetuate preferential attachment such that a small number of people and

organizations get far more attention than others.

But Hindman's data and my confirmation of a power law distribution of the indegree position of the nodes in my datasets can be interpreted differently. That is, for one, the phenomena in which many nodes (people) are at the margins—in the "long tail" of a power law distribution—should not be necessarily declared a problem of inequality. These people at the margins of the network can be thought to have high cohesiveness/ clustering with their acquaintances in the network but low centrality. In the 20th century, these were the millions of atomized people or molecularized "primary groups" with "opinion leaders." People who were once relatively isolated from one another in the sense that there could be no public communication that could occur across time and geographic space are no longer molecularized and thus, they have some potential for direct feedback opportunities and contributions into the gatekeeping process.

We can view these clusters in contrast to the "network gatekeepers," who characteristically have high centrality but low overall cohesiveness to the rest of the network. The sort of fringe position in the network of the clusters of small subgraphs relative to the "network gatekeepers" is what helps to explain how the power law distribution occurs such that while network gatekeepers are at the head of the distribution, most of the audience is in the long tail. As Benkler (2006) notes then, as a seemingly naturally occurring pattern of network structures, this kind of power law distribution cannot be avoided or regulated against. Indeed, we cannot compel people to consume

certain media sources.

A reasonable conclusion from Hindman's data might be that because the structure of networks favors certain media outlets much more over others, this might conclude us to say that this decreased exposure diversity requires subsidies for news organizations or other interventions in attempts to preserve the smaller news organizations that are at the tail end of the power law distribution. That is, some might be inclined to see such developments as a need to preserve media diversity rather than to allow the larger media organizations to increasingly acquire and consolidate with smaller media organizations consolidate.

In my view, our analysis of these concerns must first consider the rationale behind the idea that a normatively better media system is one in which exposure diversity is greater. That is, is it inherently problematic that the audience share of attention to media outlets in the modern media market are inequitably distributed, perhaps more so than in the past? In the 20<sup>th</sup> century, a major reason why it was so important to have diversity in the represented voices in the media environment was partly based on the understanding that the public had no real direct voice for being heard. Political elites had a voice in that media environment as media organizations had various incentives to represent the voices of political elites, perhaps too often uncritically. Journalists, media organizations, and various companies and major interest groups had a voice in that system as well.

In the 21<sup>st</sup> century media environment, it cannot be provably stated that the



internet has democratized the media. However, the public now have a direct voice into the media of the public sphere at least through their influence as marginal nodes of a network on which voices get “voted up” to the top. In some cases, this means that alternative voices are better heard such that the sphere of legitimate controversy may expand somewhat.

But Hindman’s look at the power law aspect of internet audience traffic is flawed because he looks at that one quantitative dimension without looking at some of the other underlying network dynamics of internet-mediated communication. Whereas Hindman sees the power law distribution of the internet as an inherent problem today, I suggest that this “exposure diversity” dimension is limited as a metric for actually evaluating the structure of the evolving media environment. The characteristic of most any real social network in which lots of regular citizens are on the fringes of the network are connected together but not central fits within the “monitorial citizen” model of citizenship. Some citizens are still highly engaged and there’s a place in the network for them too. It might even be that the journalists are among the most informed and ideally the most non-partisan citizens, oftentimes serving as surrogates for the public for public engagement. But really, it is the collective intelligence and awareness of the network as a whole that truly provides a media system that seemingly can work to fulfill the media’s democratic purpose in a modern world.

## **7.7 A HETERARCHY OF INFLUENCES?**

According to van Dijk (2012), an evaluation such as Hindman's of the evolving media environment fails to recognize that new technologies and other forces are having the effect of restructuring the media environment according to what he calls a heterarchical structure rather than hierarchical structure. By this van Dijk means that there are still features of hierarchy in this modern media environment but there are also overlaps across once divided hierarchical levels that did not exist in the past. While a single citizen may not often be able to get the attention of elites even today, the collective force of private interest groups like bloggers and/or activists serve as a kind of citizen driven, organic type of check and balance on the traditional media. Further, the very filtering up of content produced by professional journalists or politicians does not emerge simply because other elites are sharing it. That is, the influentials in a network do not become influential merely as a product of being among the elite. Rather, the evidence suggests that there is a filtering effect from the margins of the network such that many small clusters of users have influence on the common emergence and influence of certain voices in the networked gatekeeping process.

Finally, it appears that individual journalists—or at least some of them—may have more individual agency today to make decisions about how to do their work. Again, in a sense, this kind of development suggests a gatekeeping process that is structurally changing not only through practices but also through the kinds of constraints that a cash-strapped publisher can have on the decisions a reporter makes in a 24-hour news cycle.

As Keith (2011) puts, it, journalism routines today are very much in a state of transition within this different milieu for doing journalism. Keith suggests that as a transition, this shifting of routines is temporary, that new routines are forming to replace the old ones.

This may be true that journalism routines are going through a period of transition, or it may be that the idea of a hierarchy of influences on the production of media content permanently loses some of its meaning within a networked gatekeeping process. Instead, perhaps it may make sense for the hierarchy of influences on media content to move towards what I would call a heterarchy of influences model. That is, it seems problematic to simply refer to the influences on media content production and dissemination as being part of a hierarchical process today. Rather, the idea of heterarchical structures in which there is overlap across traditionally discrete power divisions may provide a better structural model for understanding how the gatekeeping process is truly changing. In what ways might we see this occurring?

For one, not all journalists can be seen as being on equal footing in a networked media environment. While some journalists may have more Twitter followers and greater network influence than the primary organizational page of their employers, other journalists have a small social media footprint. This seems to mean that different journalists would likely have constraints that come from routines while social media may empower at least some traditional journalists to make more personal judgments about how to engage in what Jarvis (2009) calls journalism as a process.

Furthermore, if some people such as bloggers or other interest groups who are not traditional "elites" are now major influencers in the gatekeeping process, then they are what embodies at least some non-elites truly having opportunities to have their voice better heard today.

Importantly, this is not necessarily to say that the shift to a heterarchical model of influences means the new media environment is better, more democratic. Indeed, we might also suggest that non-traditional media elites that have influence on copyright or other media policy could be part of a new elite gaining greater power. But whatever the changes, it seems to be true that the traditional hierarchy of influences on media content are no longer hierarchical in a traditional sense.

Now that traditional news media are not essential to the process of receiving the daily news, the strategy for news organizations needs to focus on audiences and events. That is, for one, journalists need to regularly be on the same platforms where audiences are and engaging some of them. Jeff Bezos, as the founder of Amazon, knows well the importance of using network-based algorithms to show users products that are relevant to their lives. This is one of the basic ideas behind targeted advertising online that has made internet-mediated advertising such an improvement in efficiency over traditional mass media. The ability of advertisers to use the referral algorithms develop principles essentially amounts to an approach which moves away from the mass model of homogenous audiences. Instead, the modern media business has moved towards a model

which recognizes that mediated communication today is a much more participatory process that involves recognizing the heterogeneous nature of audiences in a networked gatekeeping process. The way forward for the reconstruction of journalism, then, must continue to involve a better understanding of the networked structure of the 21<sup>st</sup> century networked gatekeeping process. The ongoing creative application of social network analysis methods applied to the study of the place of journalism and of news diffusion within this process will continue to be an important project for media scholars and media businesses. Most importantly, our ability to empirical study and understand mediated-communication within a networked structure is essential towards efforts to improve how journalism's democratic role can continue to evolve with this changing media environment.

## **CHAPTER 8. CONCLUSIONS**

Understanding the impact of the internet and its associated technologies on the development of the modern media system involves a delicate balance between recognizing the reemergence of old patterns while understanding what is truly new. It is easy to see the similarities, for instance, between two technologies like the telegraph and the radio, each one reducing the time it took for messages to reach people. But it is more important to understand the differences between any two communication technologies. In the case of the internet and the development of social network sites, viewed within the context of gatekeeping theory we can see that on the one hand, one thing has not changed. That is, the internet does not flatten hierarchies or enable the average citizen the same opportunities as a politician or a professional journalist for being heard in the public sphere. There are still “gatekeepers” in the networked public sphere the sense that some voices are more influential than others. There are still journalists who are among the gatekeepers. But these gatekeepers no longer have the control they once had over the media messages that the public can access. It is in this latter sense, in which control over the dissemination of information is removed from the equation, that a quite new and potentially better system of communication has the potential to develop.

The future development of the changing media environment, including how well the media system will work for the functioning of democracy, will likely hinge upon several different policy issues. Of all of the different policy issues that will continue to

face regulators in their ongoing obligation to preserve a media system that can uphold “the public interest, convenience, and necessity,” some seem more worthy of attention and concern than others. The economic decline for traditional media organizations has almost certainly lead to a degradation of the overall quality of journalism produced by news organizations (Anderson, Bell, and Shirky, 2012). But there is much that is challenging and potentially problematic about the media system of the 20<sup>th</sup> century. As such, it does not seem to make sense to take on bold progressive-minded initiatives such as creating a subsidy system for news organizations. After all, as Schudson (1999) notes, meaningful media reform that could truly benefit the public as a whole is not likely to happen through the efforts of journalists who are not compelled to adapt to the changing media environment. The sociology of professions literature suggests that in many ways, the impact of the development of the internet on traditional journalism can be good for better pushing journalists to make news that responds to what the networked media environment calls for.

One issue that will seemingly continue to have importance is the problem of the digital divide. The digital divide persists as a potential problem such that people of lower economic status, various minorities, and people in underdeveloped countries around the world lag behind others in the basic technological and economic resources for efficient access to being engaged in the networked public sphere. Some evidence has suggested that a knowledge gap (Tichenor, Donahue, and Olien, 1970) exists in society such that

better access to information among higher socioeconomic classes serves to widen the gap between elites and non-elites and between the rich and the poor. Some scholars argue that this knowledge gap may worsen when there are access gaps to internet-mediated communication (see Van Deursen & van Dijk, 2011; Jeffres, Neuendorf, and Atkin, 2012). On some level, as Peters (1999) notes, voluntary disengagement from public sphere deliberation should be viewed as a free choice for people living in a representative democracy. As such, given a heterogeneous public in a network society, a randomly divided knowledge gap in public affairs knowledge is tolerable. But when the digital divide breaks down by social class, this could present a problem for democracy.

Given that the particular evidence of a knowledge gap involves the effect of socioeconomic status on knowledge, there should be real concern that the new media environment could worsen the knowledge gap and further diminish access to representation in the public sphere for those from lower economic statuses. Therefore, when it comes to the debate over net neutrality—the question of whether a law should be made to prevent internet service providers from further monetize the conditions for efficient communication between different users—it is difficult to deny the possibility that the loss of network neutrality could truly serve to exacerbate already existing social and economic inequalities (Ammori, 2013).

When Tim Berners-Lee gave his idea for the World Wide Web away for free, wanting it to become a public resource that could enable a freer media system for all, he



envisioned a communication resource that would make life better for people around the world (see Berners-Lee and Frischetti, 2000). On the one hand, the efficiency that can come from pooled wealth concentrated in the hands of large media or technology companies can be useful to an extent for driving technological innovations that can make our systems of communication work better. To an extent, *Google* is a good example of a company that has seemingly managed to contribute positively to the development of a media environment that is more open than it has been in the past while still seeing unparalleled economic growth during the evolution of the internet (Vaidhyanathan, 2011).

But Berners-Lee is among many voices in the public sphere who have called out efforts by large companies to control patents and copyrights in ways that may stifle the freedom information and the development of new innovations by entrepreneurs. In a networked gatekeeping process, these companies can still gain significant control if they are able to excessively leverage the benefits of network structure. Network structure is indeed unequal by its nature. By enforcing policy that would ensure the equality of access to communication and development on the internet by anyone, the density of our large internet-mediated social network can grow stronger. But if we allow certain companies to gain excessive influence within the conditions for accessing media today, the same networked media environment can become no better or worse than it has ever been at serving the media's basic role in society enabling the information and communication functions of society.

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